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WILSON'S

PHOTOGRAPHIC MAGAZINE

FOUNDED IN 1864 BY EDWARD L. WILSON

THOMAS COKE WATKINS, EDITOR

VOLUME LI

NEW YORK

EDWARD L. WILSON COMPANY, INC., PUBLISHERS

122 EAST 25TH STREET

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DEVOTED TO PHOTOGRAPHY
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JANUARY · 1914

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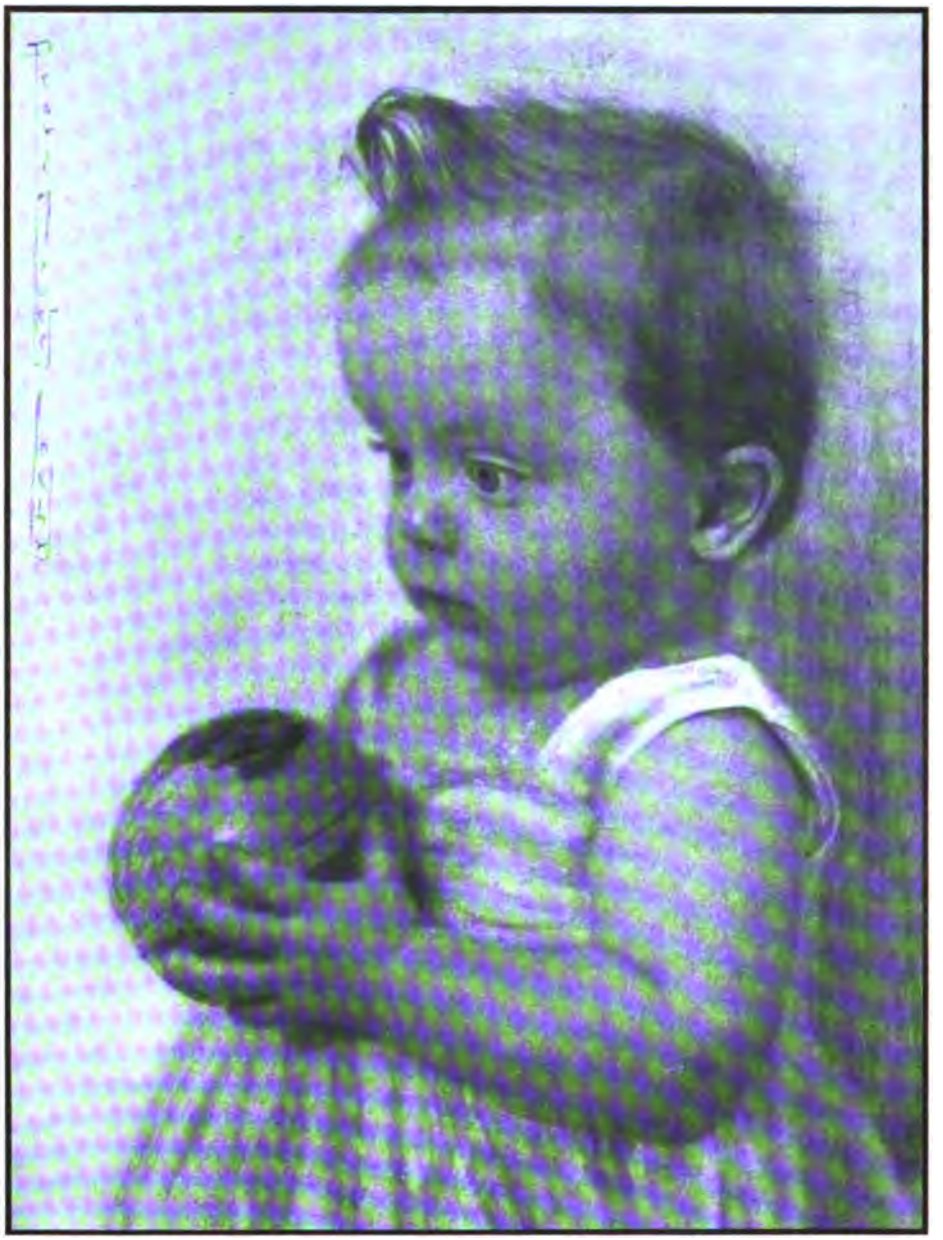


BY PEARL GRACE LOEHR

NEW YORK

PRESIDENT WOMEN'S FEDERATION OF THE P. A. OF A.

WILSON'S PHOTOGRAPHIC MAGAZINE

FOUNDED IN 1864 BY EDWARD L. WILSON

VOL. LI JANUARY, 1914 No. 1

STARTING THE NEW YEAR

THE opening of a new year has, from time immemorial, provided occasion for the putting into practice of new resolutions and methods, both in personal and business affairs, and it is probable that this custom will obtain for many generations yet to come. It is, perhaps, a good thing that such an occasion comes once in twelve months, to change the routine of thought and action if only for a brief space of time. For without some such check upon the regular habits of life and thought there would probably come to be more of monotony and sombreness of tone in the picture of every-day life about us than now exists; and this is needless.

New resolutions and methods, did we say? They were new once, but as time has passed they have come to be transmogrified. They are, in the main, today the same old resolutions and the same old methods that have been in vogue for many generations, but which with each succeeding year are brought forth from their temporary retirement, given a shake in the air and, metaphorically, dusted off; after this process of renovation they are reclothed and set up in new livery to pose as new thoughts, new methods, and new resolutions. The whole subject would be ludicrous were it not for the serious nature of the groundwork on which the changes are rung.

The foregoing is intended to convey the thought that the writer does not claim originality of idea for the suggestions that follow in this article, but its purpose will be served if he may succeed in bringing together a few thoughts and ideas capable of being worked over and remodeled to fit the beginning of the year 1914 in such a way as to be of benefit to a portion, at least, of its readers.

The subject of a Photographic Opening is one that is so hackneyed as to seem almost a parody as a New Year's suggestion, and yet, if the affair is arranged on the right lines it ought to prove not only effective and educational, but, from the photographer's standpoint, profitable. In the opinion of the writer a reason should

exist for every innovation of important action in life and business, and unless some good, reasonable reason can be assigned for a Photographic Opening at this time of the year, it will be unwise, to say the least, to devote time, energy or money to its promotion. But is there not in almost every community a strong and convincing reason that can be brought forth to serve as an excuse for an opening or reception at the beginning of the year?

Photography occupies to-day a higher place in the esteem of the world than at any previous time in its history. The competition in the production of materials has resulted in an ever increasing perfection, and the skill of the photographer of the present time is infinitely greater and more subtle than ever before.

As technical skill and artistic excellence have advanced in the profession the taste of the public has just as steadily progressed. This may be seen by the rapidity with which the newer and better methods and mediums are appreciated and adopted. If this is the case, does it not furnish a good and sufficient reason for a formal studio opening or reception to be planned for the early part of the year? The avowed object of this opening should be to place before the public of its community a collection of the choicest specimens of photography, representing the best and most modern work of this studio for the past year. Let this opening be run on the lines of an Art Exhibition and not those of a purely business venture. Make the predominating element that of Art and show only a very small collection of *choice studies* rather than a larger number of inferior prints.

It is almost proverbial that the value of an article is enhanced by the difficulty of its attainment, and we believe that this sentiment applies as well to high-class photographic productions as to anything else. If this were not so we should have no Hollinger, no Core, no Strauss, for if these men had not been recognized as masters their work would never have commanded the price it now does. This simply proves that when a photographer has attained a high plane of excellence in any special line of his work there are plenty who will buy his pictures at his own prices.

Let this opening or reception, therefore, be marked by the absence of everything but the best. If some special line of work receives at your hands peculiarly happy and effective treatment, make a prominent feature of this, and let the specimens shown be, so far as possible, the work of the past few months, certainly not more than a year.

Cultivate the press, and in towns or cities of considerable size a preliminary exhibition should be given for the benefit of the press representatives alone. Public opinion is most strongly influenced by the opinions of its favorite daily, and a well-directed local reading notice is often productive of the greatest good. Press representatives should be received on such an occasion and personally introduced to the particular merits of the different prints in the exhibition. An effort should be made to present the pictures to the public as they ought to appear to the man who made them.

The work produced through the holiday season just passed should provide examples of interest in the public eye around which interesting matter might easily be written, and which might thus be made to serve as the basis of a more or less extended criticism in the columns of the daily press. As much publicity as possible should be given to the matter before its occurrence as well as after, and such a move as this ought to provide the means for a progessive photographer to show what he is capable of in the interests of his patrons and of art.

The studio is, in many communities, the only place where artistic pictures may be seen, and this of itself is a reason why every possible opportunity should be embraced for cultivating the art instinct of its patrons.

In such communities, the studio should be made the centre of art interest, and should not confine its scope wholly to photography, for if other fields of art are included, an opportunity is provided for

exhibitions and publicity that may be made extremely profitable. Let the photographer remember that his calling is an honorable one, and that the more he exploits it *honestly,* the more his efforts will be appreciated and the greater will be his material success.

So we repeat, give an opening as early is the year as possible and make it as attractive as you can on art lines. You must get yourself prominently, favorably, and constantly before the people whose trade you desire, and this affords an excellent means of doing it.

THE RELATION OF THE WOMEN'S FEDERATION TO THE PHOTOGRAPHIC PROFESSION

BY PEARL GRACE LOEHR

President of the Women's Federation of the P. A. of A.

On January 1st, the work of the Women's Federation for the year 1914 will begin. As this magazine will reach many women photographers, who are neither members of the Federation nor of the Photographers' Association of America, of which the Federation is a component part, it seems fitting that a brief survey of the Association and of the Federation should precede a statement of the general outline of work to be undertaken by the Women's Federation.

It is nearly thirty-four years since a small body of men, engaged in professional photography, urged by pressing needs, and realizing the futility of individual effort in handling matters affecting the well being of the whole, met and organized the Photographers' Association of America. The purposes for which it stood were set forth as follows: "For the advancement of the profession of photography, to maintain cordial relations among professional photographers and to oppose any violation or infringement upon the rights of photographers."

Causes were at work to force the need to fix a professional standard and to inaugurate protective legislation, and these men but followed the universal law which forces all unions, or federations, whether political, professional, commercial or industrial, and brings about united effort for general good.

Dry plates had been perfected and placed upon the market and this opened the profession to many who lacked the technical knowledge of the processes which preceded the dry plate, and when, a few years later, films and the hand camera were placed upon the market, amateur workers infringed upon the rights and violated the professional standards.

Since the organization of the Association, and the introduction of the dry plate and film, photography has advanced until it has become a great and an important factor in the life of the world. Commercially it has created new branches of trade and industry; educationally it has brought cheaply to the child in school, the magazine reader, and through other channels, the products of the earth, the places of note, the manners and customs of other nations, in perfect form, to be vividly realized, and it has given to the poor the gift of a precious face—formerly within the reach of only those of great wealth.

The Association has in every possible way, fostered and encouraged every big and helpful step in the profession, and

BY MARY CARNELL

PHILADELPHIA, PA.

PRESIDENT EMERITUS, WOMEN'S FEDERATION OF THE P. A. OF A.

in turn each individual member has been helped. This individual growth soon developed workers who felt the need of cooperation and closer relation with other workers in their own lines, and these needs have encouraged the formation of departments within the parent organization.

MRS. BAYARD WOOTEN
NEW BERN, N. C.
CHAIRMAN SECTION II

During the thirty-four years of the existence of the Photographers' Association of America great changes have come into the social and industrial life of this country. New forces have arisen, they have entered and are influencing the profession of photography in all its phases.

Among the new forces in the social and industrial world is the large body of women who have been forced out into the business arena, and who have found entrance into most of the professions and industries. In the photographic profession they began as studio helpers, and gradually they have emerged into the profession as professional women who have built up businesses, and who own studios, and who are making their work felt as part of the photographic workers of the world.

As the numb-r of women in the profession increased a few were drawn into the Photographers' Association and they were securing its benefits in a general way. It was then that a far-seeing, generous-minded woman, grasping the value which a working membership in the Association would be to all women in the profession, and the value to the Association of such a united body of women workers, mindful of the benefits won and the greater benefits yet to come, planned to gather within the parent body not only the exceptional women—the few too great to remain unknown—but the great body of women in the profession.

The greater number of these women were working in isolation, giving their business ability and their professional worth to the few, or wrestling with their own professional problems alone—losing the inspiration of touch with other enthusiastic workers—many of them ignorant of their rights under the laws already won for them by the years of work

BY MISS E. B. REINEKE
KANSAS CITY, MO.
PRESS REPRESENTATIVE

done by the Association. Grasping these conditions in their full force, through her great heart, added to her keen business ability, Mary Carnell led the way as founder of the professional organization of women known as the Women's

CLARA LOUISE HAGINS

CHICAGO, ILL.

FIRST VICE-PRESIDENT WOMEN'S FEDERATION OF THE P. A. OF A.

Federation of the Photographers' Association of America.

This organization is to help us to a better understanding of our profession and of our own work as women, our defects, our short-comings, our successes and our improvements—for by an understanding of ourselves and a knowledge of our needs, we can better co-operate to advance not only our work but to prepare future workers for better national photographic efficiency.

The life of the Federation has been short but its work has had a value, for it has brought to photography the enthusiasm, the planning, the support and the helpful spirit of a band of organized workers having definite aims directed toward the ends for which the Association was created.

It has been said that "The first decided progress in the history of the P. A. of A. is the installation of a paid secretary."

BY PEARL TALIAFERRO
PORT GIBSON, MISS.
CHAIRMAN SECTION III

The value of this step is great—it marks a decided progress but it is not to be counted the "first" made by the P. A. of A. When the Association helped to create the Women's Federation, an organization which represents hundreds of women who were struggling to readjust feminine character, which has been centuries in the making, to the social and in-

BY MRS. J. M. YODER
HERINGTON, KAN.
CHAIRMAN SECTION V

dustrial needs of today--when these women, through this organization of the Federation were able to lead hundreds more to a clean, honorable and paying profession for women who were seeking a life work that must bring to them food, shelter and raiment, and yet not crush out from their lives the higher longings and helpfulness to the world's joys and needs—when a great national organization fostered and encouraged within itself such a sub-organization, the purpose of which is to help this portion of the world's workers through their transition period, all must acknowledge that this act was the "first" and greatest decided progress in its history.

By this act it showed that it had accepted industrial conditions of today, and was standing for those who had been forced from the sheltered life of the past to face the cold, hard facts of business life. Thus was created the only

BY PEARL GRACE LOEHR

NEW YORK

PRESIDENT WOMEN'S FEDERATION OF THE P. A. OF A.

BY SARA F. T. PRICE

PHILADELPHIA, PA.

SECRETARY-TREASURER WOMEN'S FEDERATION

national organization of women workers in any profession.

As the Federation grew, it developed that women are working in all branches —commercial, educational, scientific, portraiture and illustrations—and it offers itself as the medium through which workers in any line may be brought in touch with those holding mutual interests.

For the coming year the Federation is to carry forward the formulated plans, adapting our increasing strength and past experience to open up new fields of usefulness to its membership.

BY RUTH RICE
LOS ANGELES, CAL.
CHAIRMAN SECTION VII

One of the most important of the benefits the Federation confers upon its membership is a traveling exhibit of prints from workers in all states—known as "The Circle." Interesting and helpful plans by which the greatest benefit to members in the use of "The Circle" have been worked out by Miss Clara Louise Hagins, first vice-president. To receive the helpfulness of these plans will require the prompt compliance with a few necessary regulations to be explained by Miss Hagins, and the co-operation, in a helpful spirit, of every woman in the Federation.

"The Circle" affords a means by which the isolated worker may measure her work by the standards of the best and may receive the helpful influences shown by the picture of an artistic worker—and the artistic worker of established reputation, as guardian of a precious gift, is afforded a means by which her work may be a source of inspiration and help to the isolated worker.

Through "The Circle" and in many other ways the Federation is seeking to develop women photographers up to their possibilities—and to bring them into touch with each other, to stimulate an interest in their individual work, and to concentrate this general interest into definite activities for self-improvement and for professional improvement.

To bring these objects into realization we must have an abiding faith in ourselves and in the Federation. A faith that will not fail in the face of any discouragement—a faith based upon the fact that the Federation has been of untold benefit to each of its members, in professional growth and in financial returns.

Not alone to individual members have these benefits been bestowed. The Federation has been of benefit to the Association, for through it and its work, the women, from being ornamental accessories to the meetings, are there working loyally in all ways for its improvement and its success. The profession as a whole is feeling its work, for in bringing up the standard of work through the Federation, the women are doing their part to bring about a higher standard of professional efficiency.

Success for this year depends upon the co-operation of the Federated photographers, they must give their time and talents to draw within its helpful fold all women workers in the profession—that the co-operation the Federation offers to the Photographers' Association may increasingly demonstrate its worth to the profession. To quote from a football exhortation—"The successful work depends not on the stars, but alike upon each member of the team—no one can loaf and team work not suffer."

BY MAYBELLE GOODLANDER

MUNCIE, INDIANA

SECOND VICE-PRESIDENT WOMEN'S FEDERATION

BY JEAN ED. TOMLINSON

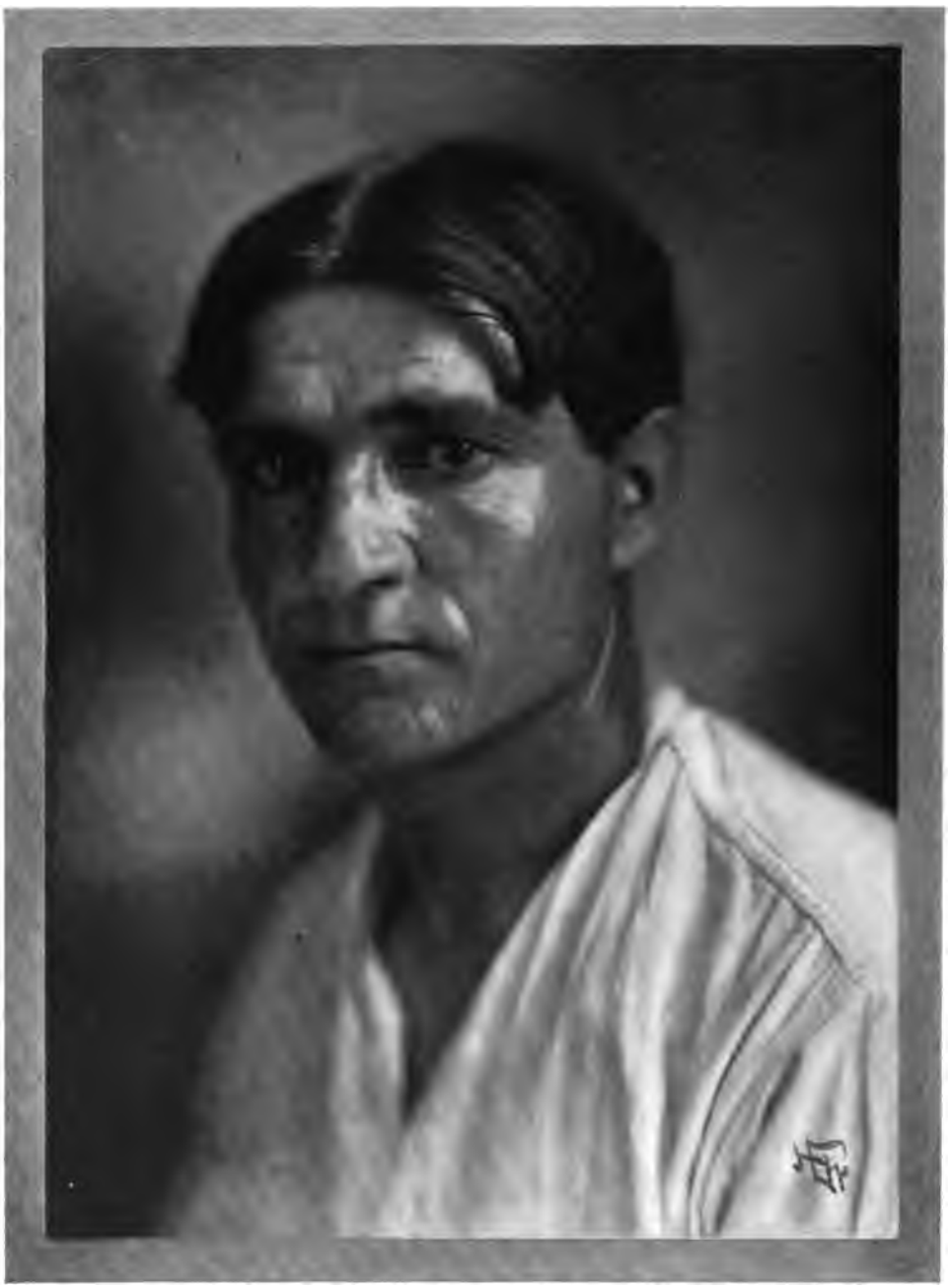
HANNIBAL, MO.

CHAIRMAN SECTION VI WOMEN'S FEDERATION

BY ETHEL C. STANDIFORD

LOUISVILLE, KY.

CHAIRMAN OF SECTION IV, WOMEN'S FEDERATION



BY HALLIE WILSON

BERLIN, N. H.

CHAIRMAN SECTION I WOMEN'S FEDERATION

SOME NOTES ON AUTOCHROME WORK IN PROFESSIONAL PRACTICE

BY ALFRED BISHOP HITCHINS

No doubt by now most professional photographers have realized that a great deal of very profitable work is to be done in the production of autochrome transparencies, not only in portrait work but also the color reproduction of works of art, commercial articles, gardens, flowers, in fact anything that has color and is wanted to illustrate catalogues or general advertising matter. The process engraver is able to use an autochrome as the medium for obtaining his three selective color printing blocks and the results are in every way equal, and of many subjects better than those obtained by making three selective negatives of the original object or a drawing of it. However, it does not come within the scope of this article to go into process methods, but to suggest a few practical formulæ for the simpler and more certain working of the autochrome process.

For the benefit of those to whom the making of autochromes is new perhaps a short outline of the process will be of interest. The essential difference between an autochrome plate and an ordinary plate is as follows: Between the emulsion and the glass support there is a thin coating of transparent microscopical starch grains, dyed orange-red, green, and violet, skilfully spread without overlapping and mixed in such proportion that as a whole the layer looks colorless when examined by transmitted light, and absorbs only a little of the light received. The emulsion used for coating these plates is panchromatic, extremely thin and of fine grain. In exposing an autochrome plate in the camera the glass side is put towards the lens, the light before reaching the emulsion has to pass through the dyed starch grains which act individually as minute selective screens, each one absorbing all colors but its own; and after development there will be under each starch grain a corresponding black granule of reduced silver, the density of which depends on the amount of color received and transmitted by each particular starch grain. If the plate were fixed at this stage, the result would be a negative and when viewed by transmitted light would show colors, but complementary to those of the original object, as the true colors are backed up by the black silver granules under each starch grain, but if the reduced silver be dissolved and the image converted into a positive then the opaque image behind each starch grain becomes transparent and passes light of the same color as the light originally transmitted by the grain during exposure in the camera, in simpler words the colors are reconstructed just as they were decomposed during exposure. A yellow taking-screen must be fitted on the lens, the exact color of which depends on the illuminating source used to make the exposure, it is necessary to use this screen to equalize the action of the light and compensate for the extreme actinism of the blue-violet rays to which the panchromatic emulsion is most sensitive. A few simple adjustments will have to be made in the dark room, as autochrome plates are sensitive to all colors. They must be handled by *deep red* light or better still by the light of a lantern screened with "Virida" paper. This paper is issued by Lumiere and five pieces, three yellow and two green, placed alternately starting with yellow should be used. The simplest way is to bind up the five pieces between two sheets of glass cut to fit the lantern;

when loading plate holders, remember autochrome plates are put into the holders so that the glass side faces the lens. It will be found better to consecrate three or four plate holders to autochrome work, readjusting the springs so as to press as lightly as possible on the plate, as it is surprising how even slight local pressure will mark this delicate emulsion, even through the black cardboard. If the photographer possesses a lens giving crisp definition at F. 4.5, portrait exposures in the studio can be made under good light conditions in about six seconds, for adult sitters, this exposure is not impossibly long but it renders it extremely difficult to secure good color plates of children; if much autochrome work is anticipated it certainly pays to instal a flashlight outfit, it must be an enclosed form, in a bag with a ready means of carrying off the smoke, about nine grammes of Perchlora powder is sufficient to fully expose a 5 x 7. Lumiere supplies a taking screen for use with this powder or Montpillard of Paris, also makes one that is a little faster, that is to say, it does not increase the exposure quite as much as Lumiere's. Certainly for the reproduction of works of art, and still life subjects generally, some form of artificial light for exposing by is desirable, it is to a certain extent a standard and makes judging the exposure an easy matter after the first trials, and it is more easily under control. Two open type arc lamps arranged one on each side of the camera in semi-circular reflectors so as to stop any of the light directly entering the lens, and throwing it all forward onto the object being photographed, is a good system; it does away with troublesome reflections, that are very difficult to overcome if only one lamp is used, especially when photographing paintings, jewelry, etc. Lumiere supply a taking screen for use with open arcs. The lens used for autochrome work must be perfectly free from discoloration, some lenses show a light yellow discoloration which may cause a faulty rendering of the colors due to their over-absorption of blue rays. With regard to the developing of autochrome plates, the writer has tried out every brand of developer and after long experiment has found the following set of formulæ to give much better results than those obtained with any of the sets of solutions commercially issued.

For the First Development, Solution A.

Water	1000 c.c.
Metol	6.5 grammes
Soda sulhpite (anhydrous)	40 "
Hydrocinone	2.10 "
Potassium bromide	2.5 "
Hyposulphite of soda	0.10 "
Ammonia, 880°	20 c.c.

For use, one part developer, one part water. It will be noticed that the above solution contains a minute quantity of a solvent of silver bromide, *i. e.*, hypo. This causes the image to begin reversing in the first developer, carry on development about four minutes until the high lights or flesh tones just begin to show reversal and look transparent when viewed against the safe light (a trial or two will soon teach you just the right time to stop development) rinse for a few seconds under gently running water before reversing.

Reversing Solution B

Potassium bichromate	4 grammes
Sulphuric acid	15 c.c.
Water	1000 "

This reversing solution works more cleanly than potassium permanganate and the action is much more thorough. About three or four minutes is necessary for complete reversal. Flood the plate with solution in the dark room, and then bring out into a strong light until the action is complete. Rinse for two or three minutes then redevelop the plate in

Redeveloping Solution C

Water	1000 c.c.
Soda Sulphite (anhydrous)	21 grammes
Diamodophenol	6 grammes
Potass. bromide, 10% sol.	100 drops

Complete redevelopment takes about four minutes and should be carried out in strong light. The best working temperature for the above solutions is 65 degrees Fahr. Autochromes made by this method will be found much more transparent and the rendering of flesh tones and light colors is very pure and brilliant.

Another "first developer" that yields wonderfully transparent colors can be made by the addition of ferrocyanide of potassium (not ferri) to the "first developer" formulæ given, in the proportion of one-half of ferrocyanide to the total bulk of reducing agents. Thus in the formulæ given we have 6.5 grammes of metol and 2.10 grammes of hydrochinon, total bulk 8.15 grammes, therefore, use 4.7 grammes of ferrocyanide and omit the hypo.

A further simplification is to desensitize the autochrome plate previous to the first development, this may be done with

Water	100 c.c.
Potass. metabisulphite	5 grammes

Immerse in this in absolute darkness and in about 5 minutes the color sensitiveness of the plate is destroyed and the first development can be carried out by ordinary orange light. One drawback to the autochrome process is that only one result is obtained each exposure, often half a dozen duplicate color plates may be wanted and happily there is a very simple way of obtaining them.

Use the formulæ given for first development, omitting the hypo. Develop the plate for about four minutes, judging the time to stop development by viewing it against the safe light; when wanted for duplicating it is best to develop a little stronger image. When development is judged complete, rinse and fix in

Hypo	20 grammes
Bisulphite of soda	5 "
Water	150 c.c.

After fixing, wash for a few minutes in running water, the film is very thin and 10 monutes clears it of hypo, then dry quickly in a place free from dust. We have now a negative autochrome with colors complementary to the original subject. All that is necessary to produce autochrome positives of true color value, and in any number required, will be to place this complementary negative in a reducing or enlarging camera, focus the projected negative image up sharply on the screen, just in the same manner as making a positive from a negative in ordinary black and white work, fill an autochrome plate in the holder and expose, of course, using your yellow taking screen on the lens and working by the same light as the autochrome negative was made by, develop in solution A and fix. It is possible by this means to make the duplicate autochrome reduced, same size, or even enlarged a little, and if once the correct exposure is found a set of color transparencies of uniform quality can be made. This is useful in dealing with commercial articles where sets are wanted, perhaps for travelers or display at various centers. The most attractive way to send out portrait autochromes is to fit them in some simple form of viewing device, preferably artificially lit, a box frame with an eight candle-power electric incandescent lamp and a length of silk flex with a lamp holder adapter is a useful form, or where the transparencies are designed to show stages in a commercial product, a number may be fixed up in one frame. Photographers who will take the trouble to make a few good autochromes, portraits and otherwise, and show them to their private and commercial clients will find a demand can be created for a very profitable line.

CHEER UP AND WORK

You can't beat cheerfulness and work.

Mighty few things are as bad as they look.

Difficulties are the best stimulant.

It's the fear of what *may* happen that makes gray hair and wrinkles.

Trouble seldom cripples a man—worry always does. Most of the trouble we worry about never happens.

The country has its "ups and downs." Business is better some years than others. But if everything was easy there would be no excitement in the game.

If it required no brains, no nerve, no energy, no work, there would be no glory in achievement.

CHEER UP AND HUSTLE.

Clarence H. White

CLARENCE H. WHITE

BY ALVIN LANGDON COBURN

FROM "MEN OF MARK"

ALVIN LANGDON COBURN

ARTIST-PHOTOGRAPHER

BY HIMSELF

ALTHOUGH I am still a comparatively young man, I feel that I have lived a very full and varied life, and as I look back over my twenty-two years of activity I feel how lucky I have been in my choice of a life-work.

Life has been a never-ending adventure with me, and although I may have been at times addicted to the pursuit of air-castles and dreams, I have always been brought back to earth by the mechanical nature of my process. You may dream as much as you like before nature, but when you come to make an exposure you must think, to a certain extent, in the definite terms of science, and in the dark-room a man who dreams is apt to have a rude awakening.

A photographer who wishes to use his medium as a means of personal expression should, I believe, begin young, like a musician, a linguist, or anyone else in fact who attempts to master a difficult technique. The camera thus becomes a part of the very existence of the user. There should be no fumbling or uncertainty, but a sureness and mastery of the complexity of the instrument that will leave the mind free to grasp the importance of the emotion nature has flashed to the brain of the artist.

That the camera has limitations and very serious ones, no one, least of all myself, will hesitate to admit; but then so has every other means of expression! When primitive man scratched with a burnt stick on his cave-wall the semblances of the ideas that had awakened his sense of beauty, he was expressing himself to the best of his ability within him limitations—yet think how far we have travelled since that time.

Today we have an instrument that will give a perfection of rendering of nature to a degree that would suggest the supernatural to a primitive man. We witness the fear of the American Indian, the water-carriers of the desert of Northern Africa, and other uncivilized people in the presence of the camera. It is the evil eye, the magic box which snares the soul, and many other highly imaginary things, and more than once I have been stoned in my endeavor to work my spells on the inhabitants of untravelled corners of the world.

And the camera really has a sort of magic about it, for, no matter how familiar one may become with its inner workings, it seems almost past understanding how it is able to take a fragment of nature, flashed through the eye-like lens, and permanently impress it on a sensitive surface; and although a child may possess and operate a pocket camera, and although each day the papers mutilate examples of photography for the gratification of the curiosity of the multitude, still the mystery remains.

In the hands of a man, like myself for example, who has made the finding of pictures by photography a life-work, it is able to do some quite astonishing things. Can you imagine a more perfect way of studying and permanently recording the subtle play of sunlight on moving water? I have spent hours on the canals of Venice, and in the waterways of many other places, feasting my eyes on the rhythmic beauty and the poetry of liquid surfaces, hours punctuated at intervals of exceptional charm by the click of my shutter.

They have been rare days, and full of a great joy—for whatever the camera may not do, it certainly does this one thing: it teaches you to look at the world about you. Even a very small camera and a very large inexperience will do this, and at last, if you persevere,

Mark Twain

MARK TWAIN

BY ALVIN LANGDON COBURN

FROM "MEN OF MARK"

you will be rewarded with the satisfaction of self-expression.

Speaking of water always brings to my mind the associated idea of clouds, for these two ever-changing forms of natural beauty seem to me to be very closely akin; they are both undoubtedly, either taken collectively or each by itself, the most fitting subjects to display

ALVIN LANGDON COBURN
BY HIMSELF

the art of photography at its culminating point.

Of course there are still a few people who are antiquated enough to take exception to my calling photography an art, as I have occasionally done in the course of this paper, and I am afraid that many of them are the indifferent painters who have been driven from the field of illustration by the precision and speed of photography. People may deride the camera in public, and secretly use it to aid their feeble drawing and lack of memory.

The great painters, without exception, welcome the artist-photographer and appreciate what he is doing. It is always my test of a painter, the attitude he takes towards photography. The camera will never do the large decorative work of a master-painter like Brangwyn, but it has simply pulverized wood-engraving as a means of magazine illustration, so that only a man like Timothy Cole can still practise it, He, indeed, being a great artist-craftsman, holds his place in the keen competition in spite of —certainly not because of—his process.

Look at the magazines of twenty years ago, and then look at them now! Count how many illustrations of the first magazine you pick up today are made with the camera and you will see what I mean. Of course, half-tones printed on chalk-surfaced paper that will disintegrate before many years are over is the worst feature of modern printing methods, causing us to think slightingly of much printed matter owing to its temporary character, but machine-printed photogravure—the process employed for reproducing this article—is going to revolutionize all that. I would like to prophesy that within the next ten years more than three-fourths of the illustrations of the world will be produced by this process.

I seem to be constantly wandering into the by-paths of my ideas, and away from what I am supposed to be writing about, but I believe that a man is never so int resting as his ideas, and that by-paths are always more amusing than high-roads—and speaking of by-paths reminds me of the Pilgrims' Road.

I first made its acquaintance where it wanders in such a friendly way along the edge of Box Hill. I came down to the district to make my portrait of Meredith, and I stayed on to admire the poet's landscape. There seems to be so much to admire in the great hill and the great man who lived by the side of it.

The place a man chooses for his habitation, quite as much as the clothes he wears, proclaims his nature. I confess that I instantly and instinctively admired Box Hill, as I had been as surely charmed with *Richard Feverel* and *The Shaving of Shagpat*, and I feel that it was not altogether in vain that I read those books, and afterwards went reso-

ROBERT BRIDGES, POET LAUREATE OF ENGLAND

BY ALVIN LANGDON COBURN

FROM "MEN OF MARK"

lutely determined to photograph the author of them—for if I have done no other thing in my life, I have made a worthy portrait of George Meredith. I say this without conceit or humility, as a simple statement of fact.

The Pilgrims' Way does not start at Winchester and follow the South Downs to Canterbury; rather it begins at Winchester and Canterbury, respectively, and meets at Box Hill—at least it does so for me, for it was from this vantage-

WILLIAM ORPEN
BY ALVIN LANGDON COBURN
FROM "MEN OF MARK"

point that I first gazed upon it and it was from here that I started on my many rambles along its yew-lined paths in search of adventure and photographs. Some day when I have covered the hundred and twenty miles of its entire length I will be tempted to divulge some of my experiences, but until then I must desist and get back to the high-road of my story again.

My aim in photography, as my friend, Mr. Bernard Shaw, has written, "is always to convey a mood and not to impart local information." This is not an easy matter, for the camera if left to its own devices will simply impart local information to the exclusion of everything else.

If you ask me how can a camera be made to convey a mood; I can only tell you that photography is a question of patience: waiting for the

FRANK BRANGWYN
BY ALVIN LANGDON COBURN
FROM "MEN OF MARK"

right hour, the right moment, and recognizing it when you see it. It also means a training in self-control, which teaches one to forego the subject, attractive perhaps in some respects, which you know are not entirely satisfactory. The artist-photographer must be constantly on the alert for the perfect moment, when a fragment of the jumble of nature is isolated by the conditions of light or atmosphere, until it becomes a perfect expression. I always think in this connection of Whistler's classic remark that "nature was creeping up a bit." The astonishing thing about it is that nature will "creep up a bit" if you sit patiently and wait for her in ambush. If she knows you are there she is off in an instant like a frightened doe.

To speak of "composition" in connection with photography seems, on first thinking of the problem, to be rather a

MAX WEBER
BY ALVIN LANGDON COBURN
FROM "MEN OF MARK"

contradiction in terms—that you really ought to say "isolation," which would perhaps come nearer to what is done in most cases; but while it is not possible to shift trees and hills about in the Herculean manner of the painter, it is still possible to move the camera in such a way that an entirely new arrangement is achieved, a few inches sometimes changing the entire construction of the picture.

And I wish to state here very emphatically that I do not believe in any sort of hand-work or manipulations on a photographic negative or print.

I would much rather have a hard, sharp, shiny, old-fashioned silver print, which was an honest workmanlike article with no nonsense about it, than the modern trash, part photography, part very indifferent draughtsmanship, with not even the virtue of a mongrel dog, that fills the walls of many of our exhibitions of so-called artistic photography today. I cannot refrain from quoting Shaw again. "A man may imitate the noises of a barn-yard and do it very well, but it is an unpardonable condescension all the same."

These photographs which are not photographs, or anything else under the sun, do more harm to the cause of photography in its fight for recognition as an art, than the millions of quite bad snapshots which, after all, do not pretend to be anything except what they are: a quite innocent and usually harmless amusement.

There is no formula for success in photography any more than there is a formula for anything else in the world which is really worth while. We used to worship what was called beauty, and people came to think that beauty and art were synonymous, but the Post-Impressionists have shown us that art and what we may have thought was ugliness may produce a harmony, for it is expression, not conventional beauty, which gives to art a power and to life a significance.—*The Pall Mall Magazine.*

Don't discuss prices until your customer has become thoroughly interested and desirous, and has resolved to order.

The crowning of all work is the knowledge that you have done your best.

If you are discouraged, study yourself and learn your own weaknesses and change your weaknesses into strength.

Effort is the mainspring of most successful undertakings.

The first sign of weakness is to let others down you or even to discourage you.

When the world looks dark put plenty of fresh air into your lungs and look into the sunshine.

Let others look upon you as dull and stupid if they will, but remember it is you and not they who passes final judgment upon yourself.

Down in the heart of most men is a tender chord it is worth while to find.

RESOLVED:

THAT we all cease trying to get something for nothing,—grafting, in other words; that we all do just a little more than we agree to do, rather than just a little less.

That honesty is a question of efficiency here on earth, with its rewards in profits now, here on earth; that honesty is not a question of morals with but a promise of a blissful idleness in a doubtful beyond later on.

That fear is the root of all evil; for if our neighbor cheats us in his store it is to fortify himself against some element out of his store.

That the basis of all life is business life; that business is the system by which we supply our wants and needs; that we are true to political life, true to social life as we are true to business life.

That we think of others as we would have them think of us; that we do as we think, the thought precedes the act.

That co-operation is the real brotherhood of man; that the prosperity of one man does not require the poverty of another man.

That both the idle man and the dishonest man, whether they be possessed of little or much, are fools in themselves and abominations to their communities. —*Printing Art.*

Remember that the best is the cheapest.

Don't waste time talking about the weather instead of talking about your goods.

When talking about your goods do not leave too much to your customer's imagination. Show him the real point in your argument.

Some men fail because they show lack of persistency or because they forget customers want facts.

The virtue of the Imagination is its reaching, by intuition and intensity of gaze (not by reasoning, but by its authoritative opening and revealing power), a more essential truth than is seen at the surface of things.

It has no food, no delight, no care, no perception, except of truth; it is forever looking under masks, and burning up mists; no fairness of form, no majesty of seeming will satisfy it; the first condition of its existence is incapability of being deceived; and though it sometimes dwells upon and substantiates the fictions of fancy, yet its own operation is to trace to their farthest limit the true laws and likelihoods even of the fictitious creation.

As the Life of Imagination is in the discovering of truth, it is clear it can have no respect for sayings or opinions; knowing in itself when it has invented truly, restless and tormented except when it has this knowledge, its sense of success or failure is too acute to be affected by praise or blame. Sympathy it desires—but can do without; of opinions it is regardless, not in pride but because it is conscious of a rule of action and object of aim in which it cannot be mistaken; partly, also, in pure energy of desire, and longing to do and to invent more and more, which suffer it not to suck the sweetness of praise—unless a little with the end of the rod in its hand, and without pausing in its march. It goes straight forward up the hill; no voices nor mutterings can turn it back, nor petrify it from its purpose.

BACKGROUNDS

BY W. L. F. WASTELL, F.R.P.S.

SOME traditions die hard, however desirable their diseases may be. Going back to the early days of portrait photography in studios it is not difficult to find explanations for the short focus lens, the north light, the multiplicity of crudely-painted backgrounds, and the collection of weirdly hideous and inappropriate accessories. The possibilities of photographic portraiture were not understood; it was not to be expected that they should be. We do not sneer at the cave-man because he scratched the outline of an animal on a piece of bone, instead of painting it with amazing realism on canvas. The early photographer worked, in more senses than one, according to his lights, and we need not be surprised that those lights were dim.

A good deal of water has run under the bridges since then, and many modern portraitists have purged their minds of the crude ideas of the pioneers, and broken away completely from the early canons of their art. Nevertheless it is somewhat wonderful to note the extent to which some portrait work, in many respects excellent, is still tainted by conservative notions. And the most frequent cause of failure is still to be attributed to the fetish of the painted background.

We should be highly amused at the set of a stage that had a (canvas) marble floor, wings of a rustic interior, sky-flaps of overhanging foliage, and a sea-piece for the back scene. We should smile still more widely if all this incongruity formed the setting for a lady in evening dress seated at a grand piano. It is no exaggeration to say that even at the present day specimens of professional portraiture are produced quite as widely mixed and inharmonious as this. Fortunately, on the other hand, such productions are becoming more and more rare. The photographic portraitist has developed into an artist in the truest and best sense of the word. He has sufficient art to conceal art. His work is a complete harmony; there is not a single false note.

Nothing has contributed more to this desirable result than the elimination of the orthodox background and the commercial accessory. This, however, by no means implies that backgrounds and accessories have no part to play in portraiture. Far from it. Let us consider a few of the more obvious phases of the matter.

Suppose, for example, that a lady could be portrayed to advantage descending a staircase; her dress and figure lend themselves particularly to such a setting. If a real staircase of suitable design is available, and both it and the figure can be appropriately lighted, so that the result is a portrait of a lady and not a record of a staircase with a casual figure, well and good. Nothing could be better, if properly managed. But let the lady stand on a commercial step accessory with a continuation on a painted flat, and the chances are that the result will proclaim itself as a disagreeable sham; and the more realistic and beautiful the rendering of the figure the more will it clash with the unnatural crudity of the painted canvas. For however skilfully a background may be produced it seldom fails to proclaim itself for what it is. It is only long familiarity with such conventions that inclines us to tolerate them.

As a rule, too, the familiar and much-used cloud background strikes an unnatural note. This is not due so much to any lack of verisimilitude in the rendering of the clouds as to the fact that it

is not usual for us to see people standing out against the sky. On the other hand we are quite familiar with their appearance as they stand or sit before a plain wall. Such a wall can be perfectly imitated by a plain background. This accounts for the fact that such a background is generally satisfactory. We do not worry as to what it is, or what it is supposed to be. We are practically unconscious of its presence, and our attention is rightly concentrated on the figure.

Even with a plain background discretion is necessary. Its tone, as it will be rendered in the print, is of the utmost importance. If the figure is to be shewn in light and delicate tones it will have a cut-out-and-stuck-on effect if a dark background is used; while a light background is unsuitable for strong effects in so-called Rembrandt lighting. Naturally the tone of the background will have considerable effect on the tone-values of the subject itself. Sometimes it is very helpful to allow the shadow of the figure to fall upon the background, as it might do upon a wall. It is sad to think that it is not altogether unnecessary to point out that no shadow should thus be shown on a background intended to suggest distance. A person throwing a shadow over a wide seascape, and even on the sky, is not a usual sight outside the studio.

The trouble with backgrounds in many cases is that they take away the suggestion of air and space around the subject. This has led to the adoption in some studios of an arrangement for posing the sitter before a sort of enclosure, forming a kind of darkened tunnel or passage. Into this the light penetrates to some extent, but does not illuminate the farther end. The result is that the more or less brightly lit figure stands out against a dim background suggestive of space and mystery rather than of a sombre and solid barrier. Our attention is absorbed by the figure, but at the same time there is a mental satisfaction in feeling that there are air and space beyond, although there is nothing clearly visible to distract the eye. It is easy to modify this effect satisfactorily by allowing some dimly-lighted object, such as a curtain or a picture, just to suggest its presence.

Broadly speaking a background should be the real thing. Distemper or flatted oil or canvas will not satisfactorily represent drapery or carved paneling; still less will it succeed as a landscape or a sky. The photographer is wise who avoids a cramped and crowded studio and works in a spacious room, well-designed and decorated for its purpose, and genuinely and appropriately furnished. Such a room will provide almost unlimited opportunities for obtaining variety in pose, lighting and setting. He will not be restricted to placing all his sitters in practically the same spot, and then merely considering which of his stock of background canvasses he will unroll behind them, and which of the blinds he will raise or lower a bit.

The mere possession of an elaborate and, in its way, well-executed background is a real misfortune to some photographers. They are tempted to use it too much. Their sample albums contain scores of examples which differ from each other only in the variety of the actual figures. Now each and every one of these persons had a character, an individuality. It should, therefore, have been the earnest aim of the photographer to have given each one just that setting which should be in harmony with the characteristics. Perhaps it is not too much to say that no two sitters should be treated precisely alike, though, of course, the more neutral and unobtrusive a background is the less need there is to vary it to any great extent.

It is the intrusion of anything artificial, theatrical, unnatural, that is fatal to the highest achievement in portraiture; and it is for this reason that the question of backgrounds requires the most careful and constant attention. Backgrounds should be used, but not abused. They play an important and definite part in this class of work, but no earnest and ambitious operator should rest content with the employment of the crude drop-scenes that were considered all-sufficient when photographic portraiture was young. Enormous advance has been

made in the rendering of tones, in harmonious and effective lighting, in suggestion of character, in selection of pose and expression, but a good deal remains to be done in the study of the "setting" of the subject. Maybe these random hints will lead some portraitists to a closer examination of their methods in this particular direction.

A word of warning may be spoken. There is an obvious tendency in some cases to go too far in the other direction, and to introduce work into the background that attracts notice at the expense of the actual subject. Some of this work is ingenious from a mechanical point of view, but is decidedly out of place. It is no improvement to a "tame" background to introduce patches of light that convey no suggestion as to their origin, and merely arouse speculation. Still less is there any justification for etched lines in what is presumably space. The background should contain no problems. If it does, they will probably be studied at the expense of the real subject. The figure is the thing, and the background should be in perfect and natural harmony with it in every way.

THE RECEPTIONIST OF TODAY

BY CARRIE BERSEY

If you ask me what I consider the most important part of a receptionist's work I should say tact, tact combined with unending patience, a sympathetic vein, and the ability to suggest the corrections necessary in a proof, such as changes in dress and many little things of a quite personal nature. A receptionist must also have temperament to handle clients successfully.

Given these preliminaries much can be done, but the receptionist of today has to know not only how to deal with clients but to think and carry out schemes to bring them to the studio. Under this heading would be included various methods from the modern very elaborate schemes of advertising down to the simpler ones such as suggestions concerning enlargements, a new process, or an enlargement made of some member of the family which will result in a call at the studio, and there of course it is up to you."

Often a timely hint as to the coming season will influence people to use pictures for Xmas gifts, etc. I never trouble my clients on the day of sitting with the business question How Many? but I do make a special request to "come in and talk over the proofs." When possible, I find it an excellent rule to let everyone know the amount of their order before leaving the studio. An experience spreading over India, Europe and America has taught me that the pleasant informal chat to people who come in to look around is more likely to result in an appointment than the business-sitting-tight-at-the-desk method.

As regards specimens a few, individual and peculiar to your own studio, are more effective than too many, and be sure that none of them are "dated" you need to be continually on the lookout for change in style of hairdressing or dress: I always at the time of booking the appointment inquire about the dress, color and style; a suggestion in the right direction at this time saves many a resitting and the customer appreciates your interest. An important thing too, is, that you should be in key with the operator. I have a principal to work with who can interest her sitters all the time and so feel when leaving them at the studio door, the good work is being carried on. I do think the Receptionist is being more and more recognized as the keynote of the business—and—of the Bank Book. But I want to close my article with a repetition, above all, tact.

HOW TO MAKE A STUDIO PAY

IV.—SYSTEM IN THE STUDIO

BY FRANK FARRINGTON

A good many photographers have a mistaken idea that their business is so different from that of the ordinary merchant that it is not subject to the usual rules that govern merchandising methods.

When a certain line of suggestions are made to a photographer you are very likely to hear him reply, "That's all right for some kinds of business, but my business is different." I don't care how different a man's business may be, the same general rules apply to it that apply to the business of others.

There must be care in handling goods, care in handling money, care in handling accounts, care in all departments, and this care must be extended to become system.

The money the photographer takes in often goes right into his pocket. He may not even have a money drawer. He keeps a book in which he sets down all of his sales. This book is supposed to represent his gross business. It does not do it, because there never yet was a business man with so perfect a mind that he could remember to set down everything in a book.

This man might think it would tell him his gross receipts if he would each night subtract the amount of money he had in the morning from that on hand when he quit work. Mistaken again, because money will slip out as well as into any man's pocket without his being able to remember how or why.

One of the first systems the photographer needs is a system of handling his cash receipts. He needs a cash register just as much as his neighbor, the druggist, needs one. Whether the receipts of the business are large or small, the same rule applies. System in handling them will insure accuracy in the accounting and it will make it more certain that the recipient of the money knows its source and its destination.

We have considered the matter of a systematic handling of stock received but the matter of systematic payment for the stock needs to be given a thought. There are not as many invoices received by the photographer as by other merchants but this is no reason why they do not require proper treatment. A man's standing with the jobber or manufacturer from whom he buys goods depends upon how that man treats the invoices for goods.

Bills paid a day after they are due; bills discounted a day after the ten days are up; bills forgotten and not paid until attention is called to them; all these go to make the wholesale dealer watchful of the photographer's account and unwilling to grant him any favors in the way of extra time when needed.

Bills should not be paid by guess. It is not enough to stick them on a file on the desk and pay them when there is time to write the checks. It does not matter to the manufacturer how much money the photographer may have in the bank as long as no check is forthcoming.

Get a book of the "Bills Payable" sort. These are regular stock with the blank book dealers and even the small stationer can get one for you if he does not carry them in stock.

This book contains a column in which can be set the date of the invoice, one for the name of the payee, columns for the address of the latter and the date when the bill should be paid, and for other items, such as deductions for freight or cash discount.

Every bill received should be entered in this book as soon as the goods are in and checked up. Then the invoice itself may be placed in a box file out of the way and the only record needed at hand will be this one handy book.

If you cannot remember to go through this book daily and see what needs to be paid that day, have a daily memorandum desk calendar on which you can keep checked the first day on which a bill requires payment.

One of these calendars is valuable as a reminder of all sorts of engagements, appointments, duties, etc. The man who will keep one on his desk and on it note in advance on the proper day anything to be done on that day, will find it easy to avoid forgetting important matters. Of course there should be a rule to take off a leaf from the calendar every morning to see what notes there may be for the new day.

In paying bills use a check on which there is a blank for the date of the invoice, the amount, and a column for noting any discounts or claims. The use of such checks makes receipts unnecessary and there should be printed on the check, "No receipt required." The checks themselves when saved form a compete file of receipts for all payments.

We often see photograph galleries where the proprietor has no proper office equipment. I do not mean that the photographer ought to have a private office. It does not matter about the office, but it does matter about the equipment. A man needs a desk and the accommodations that go with it. He cannot keep a systematic set of books or records of any sort without a place to keep them in order.

The man who is haphazard in his methods of handling his affairs will be haphazard in his results, and the carelessness in equipment as to material things will breed carelessness in the mental attitude toward system in the business.

In this day of steel firproof cabinets of moderate cost, there is no reason why a man should leave all the documents of his business exposed to danger of loss. It is no longer necessary to buy a cumbersome, heavy safe to secure protection from fire. $100. will get something in the way of a steel cabinet that will be large enough to accommodate what would take a $400. safe to hold and the cabinet will not weigh over 300 pounds. Such cabinets may not be burglar-proof against an expert cracksman, but that does not matter and that is all they lack of being equal to the heavy safes of other days.

I believe it would be wise for a photographer who values some of his negatives highly, even to have a fireproof cabinet in which to store and file the most valuable. In order, however, to make this protection perfect it would be necessary to have the contents packed in such a way that a fall of the cabinet in case of fire from the place located to lower stories would not break the negatives.

The systematic filing of negatives is the most important application of system to the photograph gallery. The simpler this system is, the better. Complication of system involves additional labor in filing and when it becomes necessary to wind too much red tape around the operation, it becomes necessary to waste valuable time both in the winding and in the unwinding.

Filing system for negatives calls for two things; a place to put the negatives and a place to keep a record of them.

There are many ideas as to the right kind of a negative storage rack and every photographer may, of course, exercise his own judgment in the matter, the important thing being to place the negatives in consecutively numbered slots with the number plainly visible on the slot and also scratched on the negative. If the storing rack is enclosed it will not be necessary to put negatives in envelopes. Placing each negative in an envelope and putting the number on the envelope does not help place the negative when it has been taken out and the envelopes mislaid or mixed with others.

Scratch the number on the negative and then put it in the slot of the same number and it is filed as well as if more detailed plans were used. The numbers should run serially and with as little subdivision as possible. If the business of

the studio is so large as to require it, each year's negatives may be placed by itself and a new serial number started with each year. Or, in order to save somewhat in numbers, instead of a different serial number being given each negative of a number made of the same person at the same time, the first may be numbered, 418IV, the second, 418V, etc. The use of the Roman numerals for the small indicators does away with the possibility of confusion that might result in using letters and in beginning with IV instead of I, there is less danger also of confusing the main number with the secondary number. The Roman numerals will, of course, go as far as desired there being no limit as there would be if letters were used.

However, under ordinary circumstances, there is little to gain by using anything but a different serial number for each negative. If the photographer desires and is not afraid of some competitor thus finding out how many negatives he makes, he can place the serial number on the back of every photograph made from it and thus when an old photograph is brought in, the negative can be found directly. If the negatives are numbered with a new series each year, this will necessitate making the number a double one, as 225—13 for number 225, year 1913.

Of greatest importance is the recording of the number of the negative and other information relative to it. There is no better system than the following:

Secure a card index system consisting of a filing box for the desk and a transfer or storage box for keeping the records not active. These boxes can be secured in sets consisting, in addition to the two boxes, of 1,200 cards, a set of alphabetical guide cards for each box and a set of monthly guide cards that can be used if desired.

Start with the boxes empty. When a sitting is made, fill out a card with the following information, for which the card is properly arranged: Name of party, number of negative, date, address, size of picture, style of paper, style of mount, price, date proof sent, date of order, date of delivery, "Remarks," blanks for data regarding reorders. This, it will be seen, constitutes a complete record of the transaction except for the financial end of it and on the other side of the card is a regular ledger account blank for caring for this.

This card is filed in the desk filing box under the proper letter. It is filed when the sitting is made and subsequent information added as the work is done. It is kept in this file until the account is settled in full. Then the card becomes, for the time, at least, dead, and it is transferred to the other box under its proper letter and there it remains until such a time as the same party may desire to reorder.

The transfer box will, of course, not hold an unlimited number of cards but when one is filled, it may be numbered "No. 1" and another started. In order to make it possible to find an individual's card when the year of the sitting is not known, it is desirable that as large transfer boxes as possible be used and the cards sub-divided by supplementary alphabet cards. Of course, if a separate box were use for each year's business, it would not necessitate any very prolonged search to find any given negative. And when the card is found, there is nothing left to the imagination. The information wanted is all right there.

The transfer box is a valuable mailing list for advertising designed to stimulate further business or reorders. For instance, if a man will go through his transfer box and address to all the names there and send out a letter suggesting the desirability of having a few more photographs made from the old negative for use as gifts, the results will be very profitable.

It is the following up of orders that secures much of the most profitable business of the studio. Instead of simply making the pictures ordered at first and then letting it go at that, the photographer ought to keep after his patrons to sell them enlargements, miniatures, hand colored reproductions, etc. He ought to make every negative produce its full possibility in the way of extra work.

It is only by the systematic filing of the names and details of orders that this can be done successfully.

When a customer issues an order for more pictures from an old negative the card is taken out of the transfer box and placed in the desk box and kept there as at first until the work is again completed.

(EDITOR'S NOTE.—A card filing system, such as is described above, can be purchased from the Eastman Kodak Co., complete for $5. Extra transfer boxes and cards are obtainable at corresponding rates).

ITEMS OF INTEREST

What is it that Makes a Picture? In general, we may say the important factors are embodied in the motto: (*a*) "Unity, (*b*) Simplicity, (*c*) Breadth."

(*a*) All things in a picture should pull together—Unity. The whole should balance either in mass or interest. Balance does not imply masses equally disposed about a centre—a small mass far away may pull as much as a large one near at hand. Variety, too, must exist, for monotony walks hand-in-hand with failure, and artistic feeling resents the bounds of formal arrangement.

(*b*) Every picture has some chief object, and to this all things else pay tribute. A picture should arrest the fleeting glance, lead it to the centre of interest, tell its story and awaken in the mind a chain of recollection or a play of fancy that inbues it with an interest, fictitious, perhaps, but fully designed by its author, the artist. Hence—Simplicity.

(*c*) Breadth, by suppressing irrelevant detail, concentrates attention and adds force to the picture idea.

These factors contribute to make the "composition" of the picture, and the artist is known not only in choice of subject, but he reveals himself in his way of handling it.

Add, then, to composition, unity, simplicity, breadth, and to these tonality, by which changing effect of atmosphere and subtle play of color may be suggested even in monochrome, conjoin the whole with skilful technique which is skilful just insomuch as it succeeds in concealing itself, suffuse the whole with the fire of individual artistic feeling, and the product, whether by brush or lens, may fairly be esteemed a work of art.

THE whole function of the artist in the world is to be a seeing and feeling creature; to be an instrument of such tenderness and sensitiveness, that no shadow, no hue, no line, no instantaneous and evanescent expression of the visible things around him, nor any of the emotions which they are capable of conveying to the spirit which has been given him, shall either be left unrecorded, or fade from the book of record. It is not his business either to think, to judge, to argue, or to know. His place is neither in the closet, nor on the bench, nor at the bar, nor in the library. They are for other men and other work. He may think, in a byway; reason, now and then, when he has nothing better to do; knowing such fragments of knowledge as he can gather without stooping, or reach without pains; but none of these things are to be his care. The work of his life is to be two-fold only; to see, to feel.

Ruskin.

RETOUCHING varnish is compounded under many slightly divergent formulæ, but for practical work there is nothing better than a plain admixture of the two rock-bottom ingredients. Mix one drachm of powdered resin in one ounce of turpentine. Rub the least possible quantity on to the negative with a wad of cotton.

OPAL DEVELOPING PLATES

FORMULAE AND DIRECTIONS

The Emulsion

1

Hard gelatine	4 ounces
Distilled water	10 ounces
C. P. Chloride of ammonium	108 grains

2

Distilled water	9 ounces
Pure nitrate of silver	252 grains
Citric acid	20 grains

DISSOLVE No. 1 by placing the vessel (which must be of earthenware) into hot water, allow the water to boil around the vessel, when the gelatine has become dissolved, add the silver acid solution under a ruby light, a little at a time, stirring well during the addition with a glass rod, allow the emulsion to become thoroughly set, then squeeze it through a piece of folded white mosquito netting, so that the whole is broken up into shreds, and falling into ice cold water in a small stoneware crock, cover the crock with the mosquito netting, tilt it so as to drain the water off, the netting may be tied tightly around the top of the crock, now pour more cold water through the netting, let stand for five minutes, drain again, continue this for half a dozen times using distilled water for the final washing, then drain for one hour, now melt the emulsion in the crock it was washed in by placing this into hot water, add one ounce of pure alcohol, stir well and filter through absorbent cotton, a glass funnel with a wide stem will do. Use this emulsion to coat the opal glass, causing them to become set by laying them down upon a bevelled slate or marble slab. When set, rack them and dry in a warm closet away from all active light, when dry pack away as other dry plates. *All* the operations *must* be carried out under ruby light.

Print by any artificial light, from half a minute to one minute will be about the time, then develope in the following: metol, 30 grains; hydroquinone, 30 grains; *hot* distilled water, 15 ounces; add sulphite of soda (dry) 140 grains; let this dissolve, then add 120 grains of dry carbonate of soda and 17 ounces of cold distilled water, add to this 32 drops of a 10% solution of potass. bromide, use when quite cold. Development will be complete in about 20 seconds if the exposure was right.

Fix in hypo four ounces; water, 20 ounces; dissolve half an ounce of powdered alum in 10 ounces of water, add this to the hypo, and two drams of acetic acid. (After development, and before fixing, the plate *must* be rinsed in acid water—half an ounce of acetic acid in 30 ounces of water).

The fixing bath will become slightly turbid, this will not injure the image. When fixed wash the plates well for half an hour or more, wipe with a piece of wet cotton and dry. These images will be of a dense black color and very brilliant. To change to sepia, bleach the image in the following: bichloride of mercury, 60 grains; bromide of potash, 60 grains; water, 15 ounces. When bleached, wash well, then return it to the hypo fixing bath. The color formed here will be a very rich sepia which, after being well washed and dried, may be varnished to suit.

Honorable business methods are the one kind that need never be changed to keep pace with the times.

The important question of today is not how many things you can do, but how well you can do some one thing.

The man who fails to seek knowledge is like a mariner sailing blindly on and refusing to consult his compass.

Still unrevealed in the great Mine of Time are millions of precious brilliant points of knowledge awaiting the delving of persistent mental miners.

TRANSLATIONS AND ABSTRACTS

BY E. J. WALL, F.R.P.S.

Oil and Bromoil Printing

Professor Fuhrmann publishes a very exhaustive series of experiments on these processes, from which it is evident that the choice of inks is much greater than has been supposed and that almost any good collotype or litho ink may be used. As softening or thinning medium for the inks he recommends carbon tetrachloride as it has no unpleasant smell and is non-inflammable. It has always been accepted in both these processes, that if the relief due to the soaking is too great it cannot be reduced and the print is useless, but Fuhrmann finds that by immersion of the print for a short time, one to five minutes, in a 1% solution of formaldehyde, the relief is reduced and a successful result can be obtained. After the print has been inked up he suggests drawing the print through a bath of carbon tetrachloride which removes some of the varnish used in the ink. It has also been generally accepted that ferrous oxalate and amidol were the best developers for the bromoil process, but he finds that pyrocatechin of the following fomula is excellent.

A

Sodium sulphite, anhydrous	12.5 g.	87.5 grains
Water	1000 ccs.	16 fld. ozs.

B

Caustic soda	8 g.	124 grains
Water	100 ccs.	3½ ozs.

Just before use add to every 100 ccs. (3½ ozs.) of A 0.5 g (7.75 grains) of pyrocatechin and then add 4 ccs. (68 minims) of B.

He also finds that the following pyro developer is good:

Pyro	53 g.	371 g.
Sodium sulphite anhydrous	166 g.	1162 grains
Lactic acid	4 ccs.	28 minims
Water	1000 ccs.	16 fld. ozs.

For use mix 10 parts of this with 20 parts of water and add one part of acetone.—*Atelier des Phot.*, 1913, p. 261.

Spotting Out With Aniline Colors

Professor Schmidt strongly recommends for spotting out purposes an aniline dye made by the Agfa firm under the name of "Neu-Coccin." It is very soluble in water, has a rich carmine color and takes readily and evenly on gelatine and can be easily removed by washing with water. The method of using it is to take a little dye up on the point of a knife and add to 30 ccs. of water and shake well. Two 50 cc. bottles of water are required and to one should be added enough, a few drops, of the stock solution, so as to give just a faint color, to the other 50 cc. bottle should be added 1 cc. of the stock dye solution.

The weak solution should be evenly painted over the parts to be spotted with a soft camel's hair brush, and then when surface dry the stronger solution should be applied. It is stated that perfectly sharp outlines and fine details can be covered with this without encroachment on neighboring parts.—*Kamera-Kunst*, 1913, p. 245.

Silvering a Mirror

Child Bayley recommends a modification of the old Martin's grape sugar method for silvering glass, which may be useful to those who happen to break the glass of a reflex camera. Dissolve 50 grains of pure silver nitrate in one ounce of distilled water, 50 grains pure caustic potash in another ounce and 50 grains of grape sugar in another. The glass must be scrupulously clean and it is preferable to use equal parts of nitric acid and water for this purpose and the dish in which the silvering is to be done must be cleaned in the same way; both must be rinsed in distilled water and must not be touched with the fingers afterwards. A cork should be fastened to the back of the glass or some small supports put into the dish at the corners so as to just keep the surface of the glass off the bottom of the dish, as the underneath surface of the glass is that which is silvered; there is no occasion to get any solution on the top.

To make up the silvering solution add strong ammonia drop by drop to the silver nitrate solution till the brown precipitate first formed redissolves and forms a perfectly clear solution, the mixture must be well stirred after each addition of ammonia. When clear the potash solution is poured in and a copious black precipitate is formed, which must be again redissolved by the cautious addition of ammonia. Then add two and one-half ounces of distilled water and place the glass face down in the dish; then add the grape sugar solution to the silver mixture and immediately pour into the dish so as just to cover the lower surface of the glass. Leave for 30 minutes,

when the whole of the silver will be precipitated on the glass or dish or as a film on the top of the liquid. Remove the glass, rinse in distilled water and allow to dry, taking care to shake off any adherent drops of water. On no account must the surface be touched till it is perfectly dry. When dry it may be polished with a tuft of cotton wool in a piece of chamois leather, with a touch of jeweller's rouge on it, with circular strokes.—*Phot. & Focus,* 1913, p. 201.

Personally, I have found this process much less convenient than Professor Wood's modification of the Lumière formaldehyde method, and I have had far greater success with the latter. Wood (Physical Optics, p. 281) gives the following directions: "Prepare the two following stock solutions:

A

Silver nitrate	5 g.	35 grains
Distilled water	500 ccs.	16 fld. ozs.

B

Formaldehyde 40% sol.	50 ccs.	350 minims
Distilled water	500 ccs.	16 fld. ozs.

The glass plates are placed in a small glass dish, and cleaned first by strong nitric acid, then by caustic potash, swabbed over the surface by small wads of cotton twisted around the end of a glass rod. Rinse them thoroughly by a stream of running water, lifting the edges with a glass rod, to allow the potash to escape from beneath them. Take about 50 ccs. of solution A in a beaker and add ammonia to it drop by drop, until the precipitate which forms is almost, *but not quite,* redissolved, the liquid having a slight straw color. If too much is added the solution becomes clear, in which case add A until a slight permanent turbidity is produced. Next mix equal parts of this solution and solution B in a clean beaker and pore over the plate (first pouring off the water). The dish should be shaken gently and the process watched. Usually with the proportions given a pinkish film forms, which is remarkably uniform, and serves as a substratum for the thicker film. If this is the case pour off the solution at once, rinse the plates and then flow over a solution made up of three parts of the ammonia solution to one of B."

These directions are for silver interferometer mirrors, which only require a thin film of silver. For reflex cameras as thick a film as possible is required and fresh solution should be applied every ten minutes or so, rinsing the plates with distilled water in between. Examine the plates by transmitted light and when absolutely opaque, rinse in distilled water and dry. It may take an hour to obtain an absolutely opaque film. When thoroughly dry, polish as recommended by Bayley and give the plate a coating of very thin collodion, not more than a 0.25% solution. This protects the silver surface from sulphuration. The films obtained in this way are very brilliant, and the process should not be hurried over; it may take an hour to obtain a sufficiently thick film.

Stereoscopy Without the Stereoscope

A great advance in stereoscopy, invented by Friedmann & Reiffenstein, is now being exhibited in Vienna at the Austro-German Medical Congress. A double negative is made in the usual stereoscopic camera; from one of the negatives is made an ordinary transparent positive, and from the other a negative, which is afterwards bleached. Let it be assumed that from the negative corresponding to the image seen with the right eye the ordinary positive is made, and that the left eye's picture becomes the bleached negative. If these two were superimposed and laid upon a white background only the right eye picture would be visible. On the other hand, if placed upon a black background, only the left eye picture would be seen. It is, however, necessary that both eyes should see their respective pictures simultaneously. This is provided by a sheet of glass, the back surface of which is prepared in a special manner, while the front surface is ribbed convexly, whereby the rays of light, falling upon this surface are broken in such a way as to make it appear black or white, according as looked at from one side or the other. The two transparencies are placed one upon the other and then on this special background. It is hoped that the special "background" glasses will shortly be placed on the market at a cheap price.—*B. J.,* 1913, p. 769.

Daylight Enlarging

J. R. P. recommends that the window for daylight enlarging should be glazed with ribbed glass with the corrugations inside and running horizontally, as this arrangement catches the light from the sky and transmits it horizontally, even without a reflector. Keep the negative about 2 inches away from the glass and midway between glass and negative put a sheet of thin oiled paper, such as caramels are wrapped in, and it will be found that a brilliant yet perfectly even light is obtained. The glass should have about 20 corrugations to the inch.—*B. J.,* 1913, p. 770.

Saving Spoiled Sulphur-Toned Prints.

Gaedicke states that sulphur-toned prints that show an unpleasing color may be saved by immersion in a 10% solution of potassium bichromate, strongly acidulated with hydrochloric acid, till bleached, washing well and redeveloping. He states that the original blacks are again obtained.—*Phot. Rund,* 1913, p 307.

Autochrome Plates in the Tropics

Dr. Tobler reports that in a recent 12 months tour in South and East Africa, he

found that autochrome plates would keep satisfactorily nine months, and also that when kept in mahogany dark slides for three or four weeks before exposure and 6 or 8 weeks after exposure faultless results were obtained. Naturally the high temperatures prevalent in those parts were a trouble, but he found that washing and drying the film after reversal was a great help in preventing frilling and melting of the gelatine.—*Phot. Rund.*, 1913, p. 297.

Double Coated Films

A German patent, 262,036, of June 16, 1912, has just been published and it is for coating plates or films with successive layers of emulsion of different sensitiveness.—*Phot. Ind.*, 1913, p. 1184.

Exactly how this differs from Sandells English patent, 21,381, of 1891, is not clear. The Sandell films and plates were on the market for years.

A New Color Transparency Process

A. E. Bawtree describes his method of making color transparencies. Glass is coated with the following:

A

Le Page's process fish glue	1250 ccs.	2½ ozs.
Water	1250 ccs.	2½ ozs.

B

Water	1000 ccs.	2 ozs.
Dried albumen	70 g.	70 grs.

when dissolved add:

Ammonium bichromate, 10% sol.	500 ccs.	1 oz.

As an alternative to the above the following may be used:

Water	1000 ccs.	4 ozs.
Fish glue	500 ccs.	2 ozs.
Ammon. bichromate, 10% sol.	250 ccs.	1 oz.

Both will keep in the dark for about two months. The glass should be flowed over with the solution and whirled at about 400 revolutions per minute over a gas ring or in front of a fire till dry. The exposure under the negatives is very brief in sunshine, about 80 seconds in June and about 12 minutes this time of the year. After exposure the plate is soaked in cold water for half a minute and then rinsed under the tap. The image is then dyed up, and Bawtree used either an acid dye followed by a basic or vice versa to obtain depth of coloring. The following table gives the colors obtainable:

Claret—Soluble blue 1%, Methyl violet 3%, Auramine 0.3%

Violet—Soluble blue 1%, Methyl violet 3%.

Deep blue—Soluble blue 1%, Methyl violet 3%, Malachite green 5%.

Blue—Soluble blue, 5%, Oxalic acid 1%.

Peacock blue—Soluble blue 5%, Naphthol green 1%, Malachite green 5%.

Blue green—Naphthol green 1%, Malachite green 5%.

Myrtle green—Brilliant yellow 1%, Chrysoidin 2%, Soluble blue 5%.

Grass green—Brilliant yellow 1%, Chrysoidin 2%, Malachite green 5%.

Yellow green—Naphthol green 1%, Malachite green 5%, Auramine 0.3%.

Lemon—Aurantia 2%, Auramine 0.3%.

Orange—Brilliant yellow 1%, Acridine 1%.

Deep Orange—Brilliant yellow 1%, Chrysoidin 2%.

Brown—Acid brown 2%, Bismarck brown 2%.

Buff—Rose bengal 1%, Auramine 0.3%.

Orange red—Rose bengal 10%, Auramine 0.3%

Scarlet—Rose bengal 10%, Auramine, 0.3%, Rose bengal 10%.

Deep red—Dye scarlet and then use Chrysoidin 2%.

Pink—Rose bengal 10%.

Grey—After exposure dust the undeveloped print thoroughly with plumbago powder applied with a soft brush, the adhesion being assisted by breathing on the plate. Then develop as usual, but apply no dye.

Warm grey—Tint grey as above, and then dye lightly brown.

Green grey—Tint grey as above, and then dye lightly grass green.

Blue grey—Tint grey as above, and then dye lightly blue, omitting the oxalic acid.

The image is immersed in the first named dye, rinsed and then stained up in the second and so on.

If the process is to be used for three-color printing then the first image must be insulated, preferably by a solution of rubber in benzole, then coating with collodion and repeating the operations.—*Col. Phot. B. J. Supp.*, 1913, p. 41.

Bawtree claims as a distinct novelty the use of one dye as a mordant for another, but this was patented by J. H. Powrie in 1905 (U. S.) and E. P. (07) and in D.R.P. 225004 —'07, he specifically mentions the dyes that can be used for three--color screen plates by this process.

Developing Print Out Papers

Valenta recommends the following for developing faintly printed out papers:

Citric acid	17 g.	119 grains
Metol	4 g.	28 grains
Hydroquinone	6 g.	42 grains
Water	1000 ccs.	16 fld. ozs.

This stock solution should be stored in small, well-closed bottles and diluted with from 10 to 25 times the quantity of water, according to the depth of printing. When the prints are sufficiently intense they should be immersed in a 2% salt bath to stop development, then well washed and toned.—*Phot. Korr.*, 1913, p. 512.

The toning of faintly printed P. O. P. prints was very much used in England about ten years ago and the results cannot be told from those fully printed out. There is, of course, a great saving of time as only a very faint image is required, as a rule, about one-fourth the depth of the fully printed proof.

EDITOR'S TABLE

ALL hail! good friends. The glory of the new year is upon us and about us, scintillating with brightness and promise and hope in every direction. WILSON'S is gathering all the glory it can from the present; it desires, from day to day, to focus something for our mutual good. A happy and a prosperous New Year to us all! It will be so if we try to make it so. We all have faith in our vocation. Then let us honor it by giving it our best thought and our best effort. Here's hands. Let us keep a constant eye upon the rack and pinion, and focus upon the highest and best.

A PERSONAL WORD TO OUR SUBSCRIBERS.

DURING the present month a great many of the suscriptions to the MAGAZINE expire. As the majority of our readers renew their subscriptions from year to year, it has long been our custom on the expiration of a subscription to send a bill for the ensuing year. On receipt of such a bill the subscriber is expected to remit for the period of time for which he desires his subscription renewed, or to notify the publisher of his intention in the matter.

Subscribers, therefore, who receive a bill for the renewal of their subscription will confer a personal favor by responding as promptly as possible. This will not only facilitate our work, which is always heavy at this season, but will insure that the subscriber will receive all the numbers of the MAGAZINE regularly as published. Several of the recent numbers of the MAGAZINE have quickly gone out of print, and the demand for copies increases month by month. Hence we cannot guarantee regular service except to those whose subscriptions are prepaid, such subscribers naturally receiving our first care and attention.

Knowing from experience in attempting to buy back copies after publication that our subscribers value the MAGAZINE and preserve their copies for reference, we suggest that all who are awake to their own interest should promptly renew their subscriptions, and so keep their file of the MAGAZINE complete.

PROGRESS

IF ever there was a tide in affairs photographic which, taken at the flood, would lead on to fortune, or at all events to better fortunes than have been vouchsafed to the profession in latter days, surely there is such a tide running now. The general popularity of photography, and, as a necessary consequence of this, the demand for better photographs than before; and, the growing feeling of more prosperous days ahead, all indicate promising opportunities for those who are alive to the situation.

Such being the indications, it is encouraging to be able to report that not a few *are* awake to the opportunities offered, and that some, moreover, are actually spreading their sails to catch the breeze.

Why should not *all* become interested in the promised revival of prosperity? The demand for a higher standard of work is everywhere prevalent; and the improved outlook is not confined to any particular part of the country. Photographers in the North, South, East, and West unite in telling us that trade is in a better state than for some time past, and, what is just now of most importance, that better prices are prevailing.

All this, despite the falling away of a few faint-hearted ones, here and there, we take to indicate a favorable opportunity for progressive photographers to enter upon an era of comparative prosperity.

How to take the best advantage of this long-looked-for opening becomes, therefore, a pertinent question.

Two ways suggest themselves, either of which alone would, in our opinion, help toward the desired end, but which, united, would with infallible certainty accomplish all that is wanted.

The first and most important step needed is that of *individual effort*. Photographers who feel that they could do better work than they do at present, should take the means without delay to produce the best possible results. Let them be candid to themselves about the matter. There is abundance of good work being produced, and those who feel themselves lacking in this direction should bend all their energies to the production of work equal to the best. Get a high standard, and level your work up to it. The works of acknowledged leaders should be studied and their methods ascertained, in order to see whether or not there are suggestions in them which would be of profit to workers if adopted in their practice. *But, above all, let them be fully informed as to the development and progress of their profession.* To this end, one or more of the best photographic journals should be very carefully studied throughout the year. The amount of good which timely perusal of the photographic journals will bring to the wide-awake reader is incalculable, and the pecuniary cost of such an effort is not worthy of mention. There is not a photographer in the country who could not, by observation and study, improve his work in some particular, and be thereby in a position to ask a better price for his work.

But we must confront the fact that there are many men so enamored of their own work as to believe that they cannot do better. The stupidity of such a belief is altogether inexcusable, but we will waive the discussion of that just now, and point out in what direction there is hope—even for them—in the matter of obtaining better prices for their work. Let them, each after his own fashion, get out a new style of photograph, individualized by some peculiarity of pose, lighting, or finish, and introduce it with their regular work at a higher rate. To our mind, the most sensible way of doing this is to adopt some special printing process for this high-grade work.

Still another way to get out of the beaten track is to cater especially to one class of trade. Observe that we say *especially*, not exclusively.

Besides, there are innumerable ways in which individual effort on the part of the photographer could improve his work and bring him better recompense.

The second way of taking advantage of the promise of better times is that of association. That photographers are awake to the advantages of unity and association is proved by the existence of the P. A. of A., well known to our readers. The field is large, however, and the members of the association find it difficult to attend all the meetings, which, moreover, are held at too long intervals to be of the most practical utility. But there is no reason whatever why we should not have federations of photographers in all the more important States in the Union, affiliated with the National, and all working in harmony for the general uplift of photography and photographers in this country. The strongest organizations in the United States are conducted with the greatest success along these lines.

We have, however, already exceeded our present available space for the consideration of this matter, and must, therefore, leave any further remarks for some future time. We have said sufficient to give our readers an interesting question or two over which to ponder, and shall await the progress of consequent events with considerable hopefulness.

Outdoors With the Camera in Winter

Judging by the few cameras seen in our tramps abroad while nature has been snow covered, the pictorial possibilities of the winter season are not sufficiently appreciated. Photography is so commonly regarded as a summertime recreation that the approach of winter put it out of mind, and the camera is shelved until the days of sunshine reappear. We would like to put in a plea for more activity with the camera outdoors in winter. The wonderful transformation scenes effected by the coming of frost and snow are fully equal in picturesque beauty to the choicest "bits" found in summertime, and their portrayal with the camera opens up a most delightful field of work in which healthy exercise and photographic pleasures are happily combined.

Who has not opened a door or window after a snowstorm, or after a night of frost, and marvelled at the white, fairyland world thus suddenly revealed? Who has not paused in admiration at the exquisite beauty of a single tree, or branch, commonplace enough in summer, but changed by a night's frost into the most desirable of subjects for the stereoscope or lantern screen? What flower of summertime is so wonderful in delicacy of structure and so graceful in its lines as the twig touched with the magic of a snow flurry?

A suggestion of the possibilities is, we are sure, all that is needed to bring out hundreds of idle cameras. The opportunities in the early spring, now fast approaching, are boundless. Let every camera be charged, with backed or non-halation plates ready for use. Go forth in the early morning when the sun just begins to touch the bejeweled trees and hedge-rows, or at night, when city lamps work wonders in the snow-covered avenues around the parks, or into the garden, where every shrub offers a subject worthy of your plate. It is a mistake to print snow scenes on any warm-toned paper, or to use a mount of warm colors. Print in black and white, and use a white, gray, or black mount as your print requires for its helping, and your winter photographs will be a source of continual pleasure.

THE WOMEN'S FEDERATION OF THE PHOTOGRAPHERS ASSOCIATION OF AMERICA

Founder and Honorary President.
Mary Carnell,
3731 Spruce St.,
Philadelphia, Penn.

President.
Pearl Grace Loehr,
39½ Washington Square,
New York City, N. Y.

First Vice President.
Clara Louise Hagins,
N. W. Cor. State & Madison Sts.,
Chicago, Ill.

Second Vice President.
Maybelle Goodlander,
409 East Main St.,
Muncie, Indiana.

Secretary-Treasurer.
Sara F. T. Price,
7430 Sprague Street,
Mount Airy, Philadelphia, Penn.

Press Representative.
Miss Reineke,
1029 Oak Street,
Kansas City, Mo.

Chairmen of Sections.

Section I
Hallie Elizabeth Wilson,
Berlin, New Hamp.

Section II
Bayard Wooten,
New Bern, N. C.

Section III
Pearl Taliaferro,
Fort Gibson, Miss.

Section IV
Ethel C. Standiford,
621 South Fourth St.,
Louisville, Ky.

Section V
Mrs. J. M. Yoder,
Herington, Kansas.

Section VI
Jean Ed. Tomlinson,
Hannibal, Mo.

Section VII
Ruth Rice,
1123 West 24th St.,
Los Angeles, Cal.

TO WOMEN PHOTOGRAPHERS

BY CLARA LOUISE HAGINS

First Vice-President, Women's Federation

PERHAPS not every woman photographer realizes that membership in the Women's Federation of the P. A. of A. entitles her to one of the greatest privileges offered by the Federation, which is an enrollment in "The Circle."

"The Circle" is a traveling exhibit of prints, reaching each member once during the year. The portfolio of prints will come to each Circle member by pre-paid express and in the February number of this MAGAZINE full instruction will be given as to how to secure a special rate which will establish the same charges for each member.

This portfolio of prints, representing the highest standard of work of the Circle members, furnishes not only educational value to each woman photographer, but serves as a means of attracting local interest in photography, as displayed in her studio.

A national exhibit of photographs, made by members of the only national organization of professional women, furnishes local newspaper items—such a display would find society editors of the town papers willing to use it as a news item.

Librarians, always anxious to call attention by bulletins and reading lists to their books, other than fiction, would gladly use the fact of the exhibit in the town to make special mention of books on the subject of photography.

It is becoming more and more the custom of High School teachers to use local industries and professions to impress upon the students the relation between the scientific studies they carry on and the actual use of the principles of chemistry and physics to be seen in the studio work.

A studio tea is always a charming way in which to attract the society and club women of the town, and if attention should be directed to the importance of photography in all its phases, it would find a place in the Club year books, and the exhibit could be utilized to attract the Club women to the studio.

In these, and in other ways, each woman can work out her individual ideas, shaped by the conditions and needs of her community, to make this exhibit of value to herself in measuring her work by that of other women, to her studio, financially, and to the community, by giving an opportunity, through the local press, through the library, through the clubs, and through other mediums, to realize the standing of women's work in the industrial and professional world.

Rules for the Circle.

The Circle for the exchange of prints will be divided into three sections,—Eastern, Central and Western.

1. Each member is requested to send three prints, all different.

2. Prints are to be mounted on light weight paper or on flexible board suitable for display on studio walls. Individual taste in mounting is to be a feature.

3. A brief history of the taking and the making of each negative and print is to be written on the back of the print, also full name and address of the photographer.

4. All prints must reach the First Vice President by Jan. 22nd, 1914, without fail.

5. In order to secure the benefits of the Circle, the annual dues for 1914 of $1.00 for membership in the Women's Federation of the Photographers' Association of America, must be promptly paid to the Secretary-Treasurer, Mrs. Sara F. T. Price, 7430 Sprague St., Mount Airy, Philadelphia, Pa. The prints for the Circle are to be sent prepaid to the First Vice President, Clara Louise Hagins, 8 North State Street, Chicago, Ill., Manager of the Circle.

In addition to the above advantages, all members will be glad to give help and information concerning their pictures to other members of the Circle.

PHOTOGRAPHY IN GREAT BRITAIN

A Review of the Month from our own Correspondent

London, December, 1913.

The Busiest Photographer in London

Mr. Alexander Corbett, the London professional society photographer who has his studios in Orchard Street has good reason to term himself, for the moment, the busiest photographer in London. Everybody knows that where Royalty goes society follows suit and what society does the middle classes follow suit. Prince Arthur and his bride recently visited Mr. Corbett's studio to be "taken." Now everyone seems to be going.

Mr. Cherry Kearton

There is a possibility, I hear, that Mr. Cherry Kearton may be seen in America on a lecture before long. He returned some months ago from the wilds of Africa where his adventures in photographing wild animals amidst native surroundings were full of exciting incident. He has already published his reminiscences under the title of "Wild Life Across the World" and his book recounts his experiences in Asia, Africa, and America. The preface to the volume is by ex-President Roosevelt who, evidently, holds high opinions of Mr. Kearton's prowess with the camera.

An Aid to Preservation

Mr. C. B. Howdill, an enthusiastic and widely experienced autochrome worker has, during the past few weeks, been taking a series of natural color plates of the famous stained glass windows in York Minster. In many of the ancient windows the ravages of time have been repaired so ingeniously that the naked eye cannot tell the old from the new glass. But Mr. Howdill's autochromes detected differences in opacity and of the method of coloring so that the plates show exactly where the new has been joined to the old. The most striking difference is in the blue glass, that of the restored work keeping its natural color while the mediaeval work is slightly suffused with green. This method of detection may probably commend itself to architects responsible for the restoration or reconstruction of historic stained glass windows where accuracy and uniformity must be maintained.

Photography and Gas

In these days of advanced electric appliances for the dark-room and studio gas would not seem to exercise any great fascination for either amateur or professional. The promoters of the National Gas Exhibition, however, think differently for upon visiting their display in London I was surprised to notice the attention given to photographic appliances. At a lecture at the following congress Prof. S. Thompson imparted advice and statistics upon papering rooms so that the light should be absorbed by the paper and not reflected. In the case of dark rooms this is important. Prof. Thompson showed that a white-washed wall absorbs 30 to 40 per cent. of the light thrown upon it, yellow or buff walls absorb 50 to 60 per cent., while red papers absorb 75 per cent. If a very brilliant dark room light is used then the obvious thing to do is to paper the dark room with red paper but if, as is often advised, a low light is employed, there is no harm in having the dark room papered in cream or white.

An Unsuccessful Project

A few months ago someone suggested that the numerous photographic societies in and about London should join hands in the form of a new federation. Last week a meeting of over a hundred officials of these societies was held in the city at which the following resolution was unanimously adopted: "That this meeting is of opinion that a federation of the London societies could offer no advantages that are not already provided."

A New Lantern Screen

A lantern screen consisting of a sheet of plate glass, obscured by grinding on one side, and coated on the other with reflecting silver is being exploited by Mr. C. D. Lewis of Ealing. Instead of silver the reflecting layer may be aluminium powder in pigment form protected with an outer coating of enamel. Increased luminosity of the projected image is the principle advantage claimed.

A Convenient Washing Tank

A plate and print washing tank so equipped with a number of inter-fitting trays that it is unnecessary to immerse the hands in the water to extract the plates or prints has been devised by Mr. T. Buckland of Sydney, Australia.

Messrs. M. and L. Mandel of 511 Laflin Street, Chicago are seeking to patent in this country a new rapid portrait camera with an enclosed developing and finishing plant attached.

Film Packs

Two claimants for improved film packs are Mr. C. L. Hopkins of Binghamton, New York, U. S. A., and Mr Silvo Cocanari of Antwerp. The salient feature of Mr. Hopkins' film pack is an arrangement for bringing the films into position by drawing out a continuous slip of paper as the exposures are made. Adequate provision is already made for what is lacking in many film packs, viz., for the removal of exposed films without disarranging the rest of the pack, and to prevent the continuous band obstructing the chamber by clogging. M. Cocanari's device is on an altogether different principle, the film being contained in a cardboard case in a long continuous band. This band of film is folded in zig-zag fashion, that is that the sensitive sides of the film are always in contact while the gelatine sides are also face to face. To the ends are attached lengths of black paper as in the case of roll films and it is by these that each folded section of the film is brought into focus.

A Note on Funnels

The employment of a fresh funnel every time powder or solutions are to be poured into a narrow-necked bottle may not appeal to the amateur as being particularly economical. That, however, depends entirely upon of what the funnels are made; with glass it is unpractical, but when they are made of paper it is different. Fine powders or even small hypo crystals can be poured into bottles satisfactorily through a paper funnel. The best paper is cartridge drawing paper folded across and diagonally and with a hole in the corner cut the requisite size. To my mind the paper funnel is superior to glass or enamel as its flexibility will fit it to the narrowest bottle neck. Then again with many photographic chemicals (cyanide of potass. for instance) the glass funnel has to be made scrupulously clean before it can be used for any other purpose. I remember seeing a chemist pour a quantity of nitric acid into a bottle through a funnel shaped out of a piece of glossy brown paper. This would open up new possibilities for the paper funnel but care must be taken to use a stout and non-absorbent paper whether the liquids be of a corrosive nature or not.

A Memorial Lecture

The annual lecture delivered in London and known as the Traill-Taylor Memorial was this year given by the French scientist M. Andre Callier. The lecture was entitled "Experiments in Photographic Research and the Construction of Photometric Instruments." The discourse throughout was of purely technical interest and it was probably this fact that accounted for the rather disappointing attendance. In accordance with the conditions of the memorial the lecturer has been presented with the commemorative medal.

J. B. SUTCLIFFE.

NOTES AND NEWS

THE NATIONAL ASSOCIATION—ITS OUTLOOK

The National Association is to be congratulated on the men who have been at the head for the last few years. The thoughtful observer who looks beneath the surface, is struck with how well they have builded, probably better than they themselves even suspect. It used to be that the National Association was hardly more than a loosely knit organization of photographers, meeting each year with no definite object for accomplishment, no laid down plan for work. All earnest photographers felt there ought to be an association for the up-lift of photographers, and so they met, often going home wondering whether any tangible good really came from it after all. These meetings accomplished a great good that they were unaware of, for their outcome has been the broad and capable men who have steered affairs for the last few years, men whose largeness of view has been such that they are gradually welding the Association into a thoroughly organized body, with its limbs working effectually for the good of the whole. I think we are all justified in feeling that in the very near future the National Association will have branches that will cover all the various specialities that photographers are interested in, so that no matter what one's line of work is, he will find within the broad scope of the National a branch that will bring him into close touch with the best that is known on this particular line. See what has already been accomplished for the commercial photographer, and look what has been done for the up-lift of the woman workman through the Woman's Federation. The National Association has really just started on its splendid career. With the wise men who are at the helm for its head, and the smaller societies for limbs, that are quickened into intense life by the blood of new thought and energy pulsing through the arteries of common interest that makes the Association a wonderous whole, what may we not hope for in the near future?—*Bayard Wooten.*

"MOVIES" BY WIRE

Announcement was formally made by the Government experimenting bureau of Vienna, Austria, that success has crowned the efforts of experiments in laboratories with transmitting moving pictures by telegraph.

The first demonstration of "movies" at a distance over a telegraph wire was made at the Congress of Science, which closed there a few days ago. The practicability was fully demonstrated, according to to-day's official report of the proceedings. The one problem not yet satisfactorily solved is the matter of greater speed in running off the films.

COLUMBIA UNIVERSITY

SCHOOL OF PRACTICAL ART, Teachers' College, New York, announce for the season 1913-1914, the resumption of the afternoon and evening lectures by Clarence H. White on "Art of Photography."

The course embraces laboratory and field work, together with practical demonstrations in the coating of paper and other photographic processes.

THE world honors a sticker—if he is not sticking in a rut.

A man's thoughts may travel fast while he is riding on a slow train.

The man who has tried and failed may deserve credit, but it is hard for him to get it.

Quite often the man who complains about his luck is troubled with a chronic lack of pluck.

It is usually easy to keep out of a fight if the other fellow knows you are trained to the minute.

If love is blind, how is it that a lover seldom fails to see when his sweetheart looks at another man?

While you are wishing for some other fellow's job it may be that he is writing an application for yours.

Tact is about the biggest little word in the dictionary.

PHOTOGRAPHS, of any subject, in the colors of nature have been the dream of photographers since photography began. Hundreds of processes have been introduced—and forgotten, because not practical or certain in results. Within the past few years, however, the problem has been solved, and today photographs in colors can be made with any plate camera by any professional with average skill in negative making, who will acquire a knowledge of the few elementary principles in which color photography differs from ordinary photography. Think of the wonderful possibilities of profit in making color photographs—pictures glowing with all the color, sparkle and realism of life. Many professionals are obtaining prices ranging from $25

to $75 apiece for portraits in color. It is an open field with wonderful possibilities in home portrait work.

The Photo Miniature No. 128 gives full and definite information on the subject, and describes all the modern, practical methods. Written by an authority: explaining Lumiere's autochrome color photography with screen-plates; the Dioptichrome process; the Paget color plate methods; bleach-out processes; the Utocolor print methods; Pinatype, etc.

With a portrait frontispiece, from life, in colors. Price, 25 cents. Obtainable from photo supply dealers or sent postfree by the publishers, Tennant and Ward, 103 Park Avenue, New York.

If you are wide awake, and want to keep well informed, as you should, on the very latest apparatus and equipment, we suggest that you give the advertising pages of the Eastman Kodak Co., in this issue your attention. There is the Round's Print Washer, which is of special help, and, of course, the success won by the Artura paper needs no comment; it is standard.

The fundamental principle of all that is best in our profession to-day, whether arrived at directly or inadvertently, is art. Therefore, study it in every way possible, absorb it at every opportunity.—A. F. Bradley.

Brain Photography at Phipps

In the new Henry Phipps Psychiatric Clinic of the Johns Hopkins Hospital in Baltimore, a new system of brain photography is being used. Fourth year students of the Johns Hopkins Medical School beginning their clinical lessons in psychiatry in the clinic are finding it a distinct advantage. This is a feature that the institution has heretofore lacked.

Brain sketching and photography as introduced there are the result of careful psychopathic methods in European countries by Dr. Adolph Meyer, director of the clinic. The department is in charge of A. J. Martin, a medical artist well known in the United States and Canada.

A human brain is preserved in a solution until it becomes hardened. Then it is sliced in very thin transverse sections, showing the lines of the brain cell. These are traced on glass. Consecutive sections are traced on a number of plates in this manner and then the plates are bound together. These plates are thrown on a screen in the clinical room and the student is instructed about the human brain.

Highly magnified, the cells and lines can be seen plainly. Brains taken from human beings of different mentality and characteristics can be compared, showing the over and under development. Animals' brains can be studied in this way, too, with great distinctness.

The man who says a thing is good enough is good for nothing.

In life you either get ahead or get a foot, and it's usually a "foot" for the man who says "good enough."

Don't rest on your laurels, or laurels will soon rest on you.

No matter *who* you are, or *what* you are, your position isn't as good as it *should* be, nor as good as it *can* be!

If you're satisfied, it's likely that your boss isn't. Remember that!

And everyone has a "boss"; if it be not the man who employs you, it is your Other Self.

Are you satisfied?

The Courage Club.—What a title to conjure with! Could three words be chosen with greater inspirational power? Is there anything the average man has less of, and needs more of? Not the kind of courage that suggests a jump from the Brooklyn Bridge, or a trip through the rapids of Niagara, but the kind of courage that backs a man up in his everyday effort; that makes him more forceful, more ambitious and more successful; the courage that makes him go to his job and master it; the courage in himself and in his power. Join the Courage Club!

There's nothing like worry to reduce a man's efficiency. And what does it accomplish? After all, there are only two things that justify worry; first, the things that we can control; and second, the things we can't.

So why not try and fix the first and forget entirely the second?

Why not?

The Philosophy of Art by Edward Howard Griggs, Author of "Moral Education," "The Use of the Margin," etc. With Bibliography and Index. Published by B. W. Huebsch, New York. Price, $1.50 Net.

Almost every large city in the land has an art gallery or the beginnings of one; an auditorium in which concerts and opera may be given, and a Steel Trust library, these various temples indicating the cultural development and aesthetic ripening of our country. With this increasing equipment and the art hunger which it expresses such a book as "The Philosophy of Art" by Edward Howard Griggs is more than timely—it is indispensable.

The book attempts to answer three questions: What is art? What does art do to the artist who creates? What does art do to the student who appreciates? It deals primarily with sculpture, painting, music and poetry. Of course, the author considers architecture as well as the composite arts; song, opera and dramatic portrayal. His thought is skillfully

organized and the reader is led on step by step from the chapters on the expression and interpretation of human life in art, through the primitive sources of art; through the defining forces behind art, namely, the artist, the epoch and the race. Separately the meaning and function of each art is considered, and, after this preparation follow the chapters devoted to the relation of one art to another, as, for example, the relation of poetry to sculpture and painting, and the relation of poetry to music. The concluding chapters are on "The Unity of the Arts," "The Dangers of Art," "Beauty and the Life of Appreciation," "The Study of Beauty in Nature and Art," and "Art for Life's Sake."

Throughout there is a wealth of apt illustrative material that discloses the marvelous versatility and universal mind of the author. It is Mr. Griggs' great gift on the lecture platform to make the learning of the ages available to the common people and this transmuting art is applied with equally brilliant effect in the book under consideration.

A place for such a book as this has long been preparing and, though other studies may follow, it is not likely that they will supersede this one. Two valuable features deserve special attention: a ten-page book list containing a selection of important works bearing on the problems considered in the volume, and an index that is suggestive and comprehensive without being too lengthy.

Photographers' Copyright League of America

Arrangements have been concluded whereby Mr. Benno Lewison has been retained by the year as General Counsel for the League.

This means that all members of the Photographers' Copyright League requiring advice in copyright matters will receive same by communicating with him or by consulting him at his office. It also means that whenever a suit is necessary to protect their rights he will represent them and fight their battles in court. For these benefits no outlay is required on the part of the member. Mr. Lewinson (whose address is 119 Nassau St., N. Y.) has been a member of the New York Bar since 1877, was elected vice-president of the New York Law Institute in 1899, was one of the trustees of the College of the City of New York in 1907-08 and is one of the directors of the New York County Lawyers' Association. He has had an extended experience as Referee and as Condemnation Commissioner, but his specialty has been Copyright and Trade-mark practice, in which he has achieved much success.

To the many photographers who have delayed joining the Copyright League because it had no Legal Department, we say:

Delay no longer, but send in your application, with dues, to Secretary Wm. H. Rau, 238 South Camac St., Philadelphia, Penna., at once. The dues remain the same,—$1.00 a year.

Professional Photographers' Society of New York

Buffalo Convention, February 11-12-13

Everyone knows of the big success of the "Falk" convention last year, but from all we hear this year at Buffalo is to go one better. A very excellent program has been carefully prepared. The exhibit last year was notable and this year should eclipse last. Pictures are wanted (not over six) from every photographer in the country. There will be plenty of room in Elmwood Music Hall without crowding, and the exhibit ought to be the largest and best ever held. Prints are being sent from the best known studios in all of the countries of Europe, and from some of the Asiatic countries, too.

HOWARD D. BEACH, President

The program is to consist of demonstrations of up-to-date methods; business talks and entertainment, a lantern exhibition of auto-chromes, a trip to Niagara Falls. At that time of year there is always an ice bridge and other beautiful winter scenery.

Among those at the end of the State who are scheduled to talk to us, are the magnetic and brilliant Elbert Hubbard, of East Aurora, whose talks on art and business philosophy are world famous; Chas. R. Wiers of the Larkin Co., who will talk on Business Correspondence and Business Getting; Mock of Rochester, whose talks are always instructive.

The time is to be used to the best advantage educationally, and as a large attendance is assured, go prepared to meet old friends and with a hand out to meet new acquaintances. You will be more than repaid.

[The following communication comes gratuitously from Mr. Hartmann and is solely his individual opinion on the subject.—Ed.]

Editor Wilson's Photographic Magazine:

On a recent lecturing tour which has taken me to a dozen towns or more in various states, the main topic of conversation whenever I came into contact with the profession, was invariably the Temple of Childhood. I must confess that most photographers had a rather nebulous conception of the scope and importance of this enterprise. While I was traveling it seems that matters have come to a kind of issue, as far as publicity in photographic circles is concerned. Most strenuous efforts were made in certain quarters to clarify the atmosphere and to reveal the true nature of this shrewd method to induce parents to send their children to some studio and to have them photographed for special exhibition purposes. The result, sorry to state, was not on the elucidating order, the atmosphere grew denser and more cloudy than ever. Double faced analysis and libelous utterances never convince, on the contrary, they confuse, and are apt to make the opinions of possible candidates more vacillating than ever.

It is important to state at the very start that even the biggest scheme—and there has never been one of a more far reaching scope in the professional world than this Temple of Childhood proposition—can not apply and appeal equally to all practitioners. It is even doubtful whether it can be taken up by more than 6 or 7 per cent. of the entire profession, or expressed in more eligible terms by about 1000 to 1500 photographers of the approximate total of 17,000. And there is the whole trouble in a nutshell. The self-appointed sponsors of the profession (it is not necessary to mention names), by nature of their occupation think that they are forced, or find it more profitable to side with the majority, and so they become double-faced, encouraging the merits of the proposition in a diplomatic lukewarm fashion, and denouncing the shortcomings, or rather the impracticability of the scheme as far as small gallery owners are concerned in most vehement terms.

The very nature of the project, that every town can be represented only by one appointee, and the larger cities by not more than two or three excludes general participation. This, as a matter of course, arouses jealousy. Photographers in this respect are not better than other professional men. The idea of extending to one practitioner the privilege of controlling by some special inducement all the children of the better families is naturally open to envy and condemnation.

Well, this is strictly business and no objection can be raised to it. So-called "pulling in" methods have always been in practice. True enough, some of our most successful portrait photographers have relied solely on the merits of their work, believing that the quality and finish, and their name on every outgoing print are the best advertisement of all. But not every studio can work in the same way. The ticket scheme "one picture free"; baby contests in newspapers; car fare free and reduction schemes; publicity inducements for celebrities of the day, professionals (to be published in professional journals) on the general public are all legitimate enough as long as they are manipulated above board, without any false pretenses. The "Book of Beauty" handled several years ago by one of the New York establishments, the object of which was to publish society beauties belonging to the Four Hundred was one of the most profitable ventures of the speculation order that have come to my knowledge. The book, issued by one of the leading publishing houses, sold for five hundred dollars a copy and every lady represented, proud of belonging to this exclusive set, did not only purchase a book but gave lavish individual orders. Is it possible to criticise such a scheme? Hardly, as only ladies actually belonging to the Four Hundred were approached and the latter were satisfied if not elated to be classified as beauties.

Now, the Temple of Childhood proposition is of the same order, only of a much wider scope, being more popular in character, and more adequate in its final aim and purpose. It also makes an appeal to vanity, but have not parents a right to be vain about their offspring, would they not have their children photographed anyhow and in that gallery which would offer a special inducement, and do you doubt that an exhibit of children portraits, likenesses and pictorial compositions, in which every state and larger town is represented by excellent workmanship will not add to the attractiveness of the Exposition?

It seems to me that the inducement of having one's children represented at such a national display is perfectly legitimate, and its method of giving the photographed child a handsome diploma and selecting the best negative for exhibition purposes, as well as the unavoidable preliminaries of sending out circular literature and follow-up letters from headquarters, is business pure and simple and above criticism, handled in the dignified and tasteful manner, as it is by this company.

The educational, artistic and, if you like, ethical features are not of minor importance. To the professional it is strictly a business proposition. Will it pay? The expenses connected with it, the 25 per cent. commission to the Temple of Childhood Co. for the privilege of becoming an appointee, and the ten cents per head for the list of prospective sitters sent in, are said to be prohibitive. Prohibitive to whom? Surely, only to such gallery owners that are not in the habit of advertising. The majority of photographers advertise in one way or another. It is always a risk. The result is never certain. Also in

this case there is no guarantee. It depends largely how cleverly the individual will swing the proposition. There will be a small fortune in it for some men. Others may fare less luckily. But it does not look as if it could be a losing proposition if rightly handled.

The only question is, will the Temple of Childhood Co. carry out all it promises—to erect the building, to reserve a special hall for the exhibits, and put one print of all the selected negatives—they may amount to hundred thousands—on exhibition? And is the photographer sure that the company will not abuse the privilege of sharing the negatives in possession? I believe these questions can be answered with an emphatic yes. The plans will be carried out, the names of the promoters and the Advisory Board and of the principal shareholders—including some of our best photographers—are sufficient guaranteee for that. The selected pictures will be on exhibition, the best (selected probably by a special jury on points of health and beauty) will be displayed on the walls, the others be shown in portfolio albums or "hung" by some "easily accessible" device. As for the use that might be made of the negatives (life size enlargements, color portraits, etc.) well as long as the photographers share in the profits of these exhibitions, and the latter are conducted in a dignified business-like manner, no fault can be found.

As for the code of honor and courtesy that should prevail in any profession—I do not believe that this proposition has anything to do with it. It is merely a business enterprise and it is left entirely to individuals whether they wish to take it up or not. The small gallery owner and low-priced man is barred from it as he is from so many projects (that he might like to enter upon) on account of a deficiency of funds or the nature of his work. The postal card man, of course, is not interested in such co-operation. It is a venture for the larger and high price establishments.

And as the Company caters to work that is technically efficient and in good taste, in order to make the necessary artistic display, the competition aroused thereby (not considering any special contests and prizes as has been promised) should produce a healthy stimulant for better, more serious and pictorial child photography throughout the country.

I, for my part, would be proud if I had originated such a plan of national importance, which means an actual benefit to at least a part of the profession (the wide awake ones) and that after all will further the interests of photography. It was left to the late Mr. Lewis Godlove of the Strauss Studio, St. Louis and Mr. Sherman Danby the manager of the Temple of Childhood Co. to invent and develop the plan, and I do not only hope but sincerely wish that the project, as conceived in Mr Godlove's brain, will be carried out, and that the result will prove the futility of all the falsely inspired antagonism of the present moment, for Mr. Godlove, although primarily a business adviser, loved photography and would have never condescended to sponsor anything that would be injurious to the true interests and advancement of the profession.—*Sadakichi Hartmann.*

NOTICE of appeal from the decision of Judge Hazel in the Goodwin suit having been given by the Eastman Kodak Company, further comment upon this most important case must therefore be deferred until the final decision has been rendered by the United States Circuit Court of Appeals.

PHOTOGRAPHIC MAGAZINES A NECESSITY

DURING the last few years the photographic magazine, both weekly and monthly, has devoted more space to the practical side of photography and no photographer today should be without one or more of these magazines. Instead of adhering to strictly photographic writers, they are now securing articles from leading men in other lines, whose experience in business enables them to bring facts before the photographer which he had never dreamed of.

WILSON'S PHOTOGRAPHIC MAGAZINE for October starts in a series of articles on "How to Make a Studio Pay," by Frank Farrington. There is no question but what these articles alone are worth more than the price of the magazine for a year to the photographer.

We naturally are anxious to see the photographers of the country take advantage of everything offered them and we feel that few of them realize the benefit they could derive from the monthly and weekly magazine. This, of course, with the understanding that they go through the magazine and secure from it and store away for future reference, the many ideas brought out.—*Ohio Photo. News.*

A fair person is usually best if printed in a warm tone; and a very delicate, lace swathed form should be very lightly printed.

Be cheerful and bright before your sitters, and be active. Nothing is so depressing to a subject as a slouchy, careless, swaggering operator.

Photographers are now becoming more acquainted with the requirements of half-tone, and are learning how to prepare prints somewhat harder and pluckier for reproduction. One curious feature of this, as regards some extreme work, is that, thanks to this special care, and often to considerable reduction in size from the original, the half tone prints represent the photographer more strongly and favorably than does his original work.

THE BIG $1.00 CONVENTION AT SCRANTON, PA., MARCH, 1914

A THOUSAND membership campaign is being inaugurated by the Professional Photographers' Society of Pennsylvania, which territory includes Pennsylvania, Maryland, Delaware and District of Columbia.

Traveling salesmen and demonstrators are empowered to enroll members in this society.

We want every photographer, little and big, within the above territory, who is proprietor of a studio, to become an active member of this Society Photographers located outside of above mentioned territory may become associate members. The membership fee to all is only $1.00.

Every member enrolled will receive a book containing the criticisms of all pictures exhibited at the Big Scranton Convention.

Give the traveling boys your enrollment.

If none of them reach your territory, or if you so prefer, you may mail your application, with $1.00, direct to W. I. Goldman, treasurer, Reading, Pa., and you will receive from the treasurer a handsome certificate of membership, suitable for framing.

IN compounding formulæ it is a great convenience to make up the soda solutions by hydrometer test. But it is essential that the sodas used should be of uniform strength and the hydrometer absolutely accurate.

A formulæ recommends the use of E. K. Co. Tested Sodas. And that these sodas may be made into solutions of certain strength, we recommend the Eastman Tested Hydrometer. This hydrometer has a graduated scale of extreme accuracy and a new flat stem which allows a ready reading of the scale, even in a poor light, owing to the fact that the bothersome reflections of the round stem are done away with.

Photographers are realizing more and more the necessity for accuracy, and this new hydrometer will be found both convenient and correct.

The even diffusion of the light by the Wratten Safelight Lamp No. 1 has made this type of developing lamp exceedingly popular. A good many photographers, however, have not found the white light slide necessary, so we are now supplying the Wratten Safelight Lamp No. 2, which carries the safelight only, as shown by the above illustration.

The safelight is 8 x 10 inches, and any one of the Wratten Safelights will be supplied, but when not specified the Series No. 1 will be sent. The No. 1 is an orange safelight, for use with ordinary, medium and extra rapid plates which are not color sensitive. The Wratten Safelight Lamp No. 2 is equipped for electricity only, cord and sockets included, no bulb. The price, Wratten Safelight Lamp, No. 2, $6.00.

BRITISH JOURNAL PHOTOGRAPHIC ALMANAC, edited by George E. Brown, F.I.C., 1496 pages, paper edition 50 cents, cloth $1.00, George Murphy, Inc., 57 East 9th St., N. Y. City, sole sales agents. This standard annual comes to us larger than ever, and brim full of the most valuable information for the photographic worker. Several new features appear in the present Almanac. Of these the glossary of photographic terms will undoubtedly be of service to many beginners in photography who refer to the annual for descriptions of apparatus, etc., and who come across many words in these pages that are not familiar to them. The list of the German, French and Italian equivalents of the chief appliances and apparatus should also be a help to those referring to foreign photographic books and periodicals.

As an aid to beginners, also, the series of reproductions of negatives incorrectly exposed and developed should be even more effective than pages of printed description. Mr. C. H. Hewitt, the well known authority on photographic matters in England, who prepared many of these, has usefully supplemented them by an article on the subject.

As a valuable hand book for the photographer who wishes to have the latest formulæ and information on photographic matters, there is no better publication for reference than this well known and ably edited annual. Order a copy today; it is a splendid investment.

PHOTOGRAPHY in general and photographic journalism in particular has lost a good man in Karl Wilhelm Wolf-Czapek, the editor of *Die Photographische Industrie,* author of "Angewandte Photographie in Wissenschaft und Technik," "Die Kinematographie" and a host of other works. He was only 36 years old, but had made sound friends by his kindness and geniality and a good name by his tireless and restless energy.

THE question of what medium to use for enlargements baffles the amateur and even the professional by securing the desired results. We can recommend the Montauk Bromide Paper as being fitting for any negatives. It has nine different grades and surfaces, including buff stock. It is not necessary to say that the developer should contain Hauff Metol, as Hauff has been a developer standard on the market for many years past. Anyone interested can secure free samples of the above paper by addressing G. Gennert, 24 and 26 East 13th St., N. Y. City; 320 S. Wabash Ave., Chicago, Ill., and 682 Mission St., San Francisco, Cal. Also ask for Hauff Booklet, an interesting little information booklet, containing a host of formulæ.

An international exhibition of kinematography will be held in Glasgow, Scotland, from the 17th to 26th of February. Full details may be obtained from the organizing secretary, E. Schofield, 140 West George Street, Glasgow.

Autotype Photogravure Carbon Tissue

In the issue of the *New York Times*, December 7th, 1913, there appeared a great sheet, showing many pictures of what was represented to be the "American Girl." This sheet illustrated the new process fast coming into use by the leading newspapers in Germany, England and United States. These pictures, combined on a large double sheet of the issue referred to, and called the special Rotogravure Section shows a process that is to make the usual pictorial section worth far more than before.

Rotogravure presses for the *New York Times* are now being built in Germany, and it will not be long before the presses will be used in making all the pictorial sections of that paper. The Rotogravure briefly described is an adoption of the slow and expensive work of the Rotary Gravure, to the fast Rotary Presses.

We refer to this case to emphasize the demand for the Photogravure Carbon Tissue, and specially for the new Photogravure Tissues, namely, G-4 and G-5 used specially for the Rotary Cylinder.

Death of Miles A. Seed

Mount Vernon, N. Y., Dec. 5.—Miles A. Seed, inventor of the Seed dry plate, died of pneumonia last night at his home in Pelham Heights. He is survived by his wife, three sons and four daughters. Mr. Seed was 70 years old and was born in Preston, England. He came to America in 1867. He retired from business in 1906, when the Eastman Kodak Company bought his dry plate factory in St. Louis, Mo.

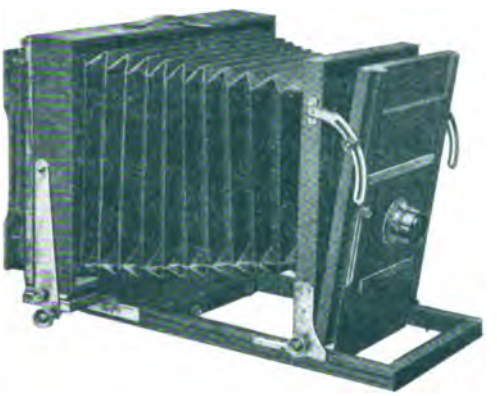
The American Annual of Photography, 1914, edited by Percy Y. Howe, price, paper, 75 cents, cloth $1.25; George Murphy, Inc., 57 E. 9th St., N. Y. City, sole sales agents. This well-known annual is quite up to the standard, and contains much of interest to the photographer; especially the amateur. While the past year has not been very productive for any new discoveries or methods, it is valuable to have practical subjects treated in a fresh manner by so many workers.

The increased interest and improvement in color photography, and the recent introduction of cut films for studio work marks the most notable progress of the year, and this subject is treated upon very completely. The illustrations in this volume represent the best work of the year, by leading camera workers at home and abroad, and the contributed papers cover almost every phase of photography, and contain many new and useful methods of manipulation; so that we have again an interesting and handy annual for all those who want to become better informed on the latest word in photographic matters.

Current Topics in Leading Periodicals

Air-Brush Work. Dec. 5th *Brit. Journal.*
About Detail Suppression, John Bartlett. Dec. 10th *Bulletin.*
Automatic Aid to Depth of Focus, An. Dec. 12th *Brit. Journal.*
Blocking Out Negatives with Various Opaques. Nov. 29th *Bulletin.*
Brief Talk on Lenses, Felix Raymer. Nov. *Camera Craft.*
Changing the Color of Prints. Nov. 19th *Bulletin*
Color Screens, A J. Wall. Dec. *Photo-Era.*
Cracked and Broken Negatives. Nov. 28th *Brit. Journal.*
Cleaning and Renewing the Daguerrotype. Dec. 3d *Bulletin.*
Causes of Frilling of Plates and Films. Dec. 9th *Photography and Focus.*
Development of the Color of the Negative. Nov. 29th *Bulletin.*
Efficiency in Intensification. Nov. 29th. *Bulletin.*
Enameling Platinum Prints. Dec. 10th *Bulletin.*
How to Make Lantern Slides. Dec. 8th *Amateur Photography.*
Negative Stain. Dec. 3d *Bulletin.*
On the Toning of Photographic Prints by Sulphuration. Nov. 17th *Amateur Photographer.*
Panoramic Photographs. Nov 21st. *Brit. Journal.*
Perspective in the Background, John Bartlett. Nov. 26th *Bulletin.*
Pyro-Ammonia Developer, The, L. C. Bishop. Nov. *Camera Craft.*
Platinum Prints Upon Textile Fabrics. Dec. *Camera.*
Protective Coating for Developed Prints. Dec. 17th *Bulletin.*
Reducing Action of Light. Dec. 10th *Bulletin.*
Simplest Form of Artificial Light Photography, The. Nov. 17th *Amateur Photographer.*
Sulphide Toning of Silver Prints, A. J. Jarman. Nov. 19th *Bulletin.*
Sky in the Picture, The. Dec. 3d *Bulletin.*
Self-Portraiture. Dec. 8th *Amateur Photographer.*
Silver Stains and their Removal from Negatives. Dec. 16th *Photography and Focus.*
Sulphurous Acid and the Acid Fixing Bath. Dec. 16th *Photography and Focus.*
Transferring Photographs to Pottery and Other Rigid Surfaces. Dec. *American Photography.*
Vignetting Bromide Prints. Dec. 5th *Brit. Journal.*
Varnishing Negatives. Dec. 12th *Brit. Journal.*

The F. & S. Banquet Camera



LARGE GROUPS made indoors at banquets, meetings, public gatherings, etc., are very profitable to the photographer who is equipped to do the work right.

The F. & S. BANQUET CAMERA is constructed especially for this class of work, and is supplied in two sizes, 12 x 20 inches and 7 x 17 inches. The adjustments on this camera make it possible to operate close to the wall in order to include every person in the room.

Outdoor groups and views find a ready sale when made with the 12 x 20 F. & S. BANQUET CAMERA.

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Eastman Kodak Company

Rochester, New York

Where quality is the first consideration, there is but one developing-out paper:

ARTURA

There's not a disappointment in it.

ARTURA TRADE MARK

ARTURA DIVISION,
EASTMAN KODAK COMPANY,
ROCHESTER, N. Y.

VOLUME LI NUMBER 2

WILSON'S Photographic Magazine

AN ILLUSTRATED MONTHLY
DEVOTED TO PHOTOGRAPHY
FOUNDED IN 1864

EDWARD L · WILSON CO · INC
122 East 25th Street · NEW YORK

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THE efficiency developed by scientific management is the life blood of every business plant today. A cost system is the first step towards ascertaining the best way to produce an article, and the best way is always the cheapest.

The best way sometimes means the use of the best men, the best machinery, and the best raw materials, irrespective of the price. A studio may save the price of an Ansco Printing Machine in a single month. The elimination of waste prints, and the customers gained by using

Cyko Paper

may pay for a whole year's paper bill of any progressive studio.

There's food for thought in this for many photographers.

Send for a copy of PORTRAIT and the PROFESSIONAL CYKO POINTER.

Ansco Company

BINGHAMTON, N. Y.

BY FLORENCE MAYNARD

PHILADELPHIA, PA.

WILSON'S PHOTOGRAPHIC MAGAZINE

FOUNDED IN 1864 BY EDWARD L. WILSON

VOL. LI FEBRUARY, 1914 No. 2

THE SUCCESSFUL PHOTOGRAPHER

OF all professions, it seems that the photographer, to be successful must be the most versatile, capable of turning from one thing to another with ease; keeping cool and calm under all conditions and circumstances. He must have full and complete control, and be master of the situation. First, he must be a good business man to succeed, for what business can be prosperous unless conducted on business principles and with business methods. He may have all other qualifications for a good photographer, yet without business methods and tact he can not be altogether successful, though he may not be an utter failure. He should have a set of books, and keep a strict account of all receipts and disbursements, and be able to know whether he is a success financially or not; for you may be sure that if there is failure here, there is failure throughout, for the success of all departments of the business are largely dependent on finances and financial success. He should be neat and clean and fairly well dressed, as personal appearances have much to do with success. He should meet his customers in an agreeable and affable manner, showing an interest in them and a desire to please, which will place them at their ease and in a proper condition for a pleasing picture. First impressions tell. With care and tact, a valuable customer may be gained right here; while carelessness and inattention may drive him or her away forever.

Study human nature; learn to read each face as it comes in, and with a reasonable amount of experience you will learn to handle each individual subject that presents itself. One person is jolly and delights in a joke; hand him out one, if you have them in stock (and you should have), and hear him laugh. Now, that he is in good humor, work him around to the picture subject and you are almost sure to get a good expression and a good order. The next person may be just the opposite in his nature and make-up. He is dignified and solemn—he never could laugh—never could see the point of a joke,

everything is going to the "everlasting bow-wows" with him. Do no joking, if you would please this patron. Be dignified; show your styles of work in a dignified manner; give your prices, if requested, and by treating him as an important person you may make a good, regular patron.

Use judgment and care along these lines and you should succeed. Be very careful in making your sittings. See to it that you have the very best that you can produce in the way of negatives. Do not let a plate or two stand in the way of your success, but know yourself that you have the very best negative that can be made before the customer leaves the studio; for with good negatives and proper care in the printing and finishing you are sure to turn out a pleasing portrait. We believe that it pays to put in honest and conscientious work all along the line. Your customers will in time, recognize your efforts to please them, and knowing your integrity, will be more inclined to give you their patronage, rather than to pass it to those who are known to be careless and indifferent as to the quality of their work.

Let us be clean and painstaking in finishing our work, remembering that a clean, well-finished picture is a credit to its maker and a travelling advertisement for more patronage; while a dirty, slovenly piece of work is an abomination, unworthy of the efforts of the producer, and while also a travelling advertisement, it is one that keeps away trade rather than that it should bring business to the one who is known to have sent it on its rounds.

Let your pictures have a clean crisp appearance as they go into the hands of your patrons, and by placing a small envelope of perfumed sachet powder within the package, with your advertisement neatly printed thereon, thanking the patron for the favor of her order, it will give a dainty effect and prove very pleasing to the customer.

The confidence of the public is your "winning card," and is worth much to you in your business. Do all you can to gain and retain this confidence, for it means success. Finish your pictures promptly and on time, according to agreement. Do not agree to have pictures done at a certain time, and then fail to deliver them (making excuses that the patron will consider only as such), for how can you keep the confidence of your patrons while disappointing them; and what will they think of you as a business man if you treat them in this manner? Again, how humiliating to you, if you have to make all kinds of excuses for not finishing their work when promised!

Soon you have lost your reputation for reliability and promptness and your competitor over the way has gained a customer through your negligence. Be prompt, if you would succeed. Let it be understood from the start that you are a man among men. Let the people understand that you are giving the very best work at reasonable prices, and that your products are fully worth the price that you ask for them; that you are not in business for your health, or in competition with the cheapest man in the country, but to live as the people live about you, and to gain a competency for old age. Charge prices that will pay all your expenses and keep you honest, and your name and credit above reproach, leaving a goodly amount for a bank account. Less than this means failure, and in the end, with credit gone, you are classed with the disreputables and the unsuccessfuls.

Study the cost of your products and see if they can be produced for the prices that you are asking. Remember, you are to be honest with yourself and those who are dependent upon you, as well as with the persons on the other side of the transaction. Many photographers figure only the cost of plates, paper, cards, and chemicals, and charge accordingly, thinking that all receipts above these expenditures are "profit" and that their "profits" are large. If they would add the interest on money invested (which is a perfectly legitimate item), the rent of their studios, the cost of fuel, taxes, light, insurance, help (if any is employ-

ed), repairs to instruments, furniture, etc., and occasionally the addition of a new article of furniture or a new and improved instrument; in fact, all necessary expenses connected with the conducting of the business, and not forgetting a reasonable salary for the proprietor (whose time, labor, skill, and energy ought to be worth as much as those of men engaged in other professions), they might discover that business was being done at a loss and unless prices were raised to meet the discrepancy, they must close up and retire in a short time.

Advertise, but do it judiciously. You can invest much money in advertising and, if not careful, receive very little benefit therefrom. There are many ways of advertising. Some are good, while others are not to be thought of.

For instance, it has been our experience that large newspaper advertisments are not profitable for the photographer (as they do not bring in sufficient returns for the money invested therein), while a small local, now and then, may be quite beneficial. We think that "fence advertising" is good (in some localities), as we placed some of this kind some fifteen years ago and it is still bringing in trade from those who travel to the town in which the advertiser is located. We are opposed to all kinds of "fake advertising," prize-giving or "free-gift" schemes, as they are costly and always harmful; giving the public the impression of cheapness and lack of quality in your work. Hold to this last plan of advertising for any length of time and your business will soon stand in about the same relation to a first-class studio as does the dime museum to grand opera. The best advertising that you can possibly have is a pleased customer and the good work that you send from your studio. This kind of advertising is being renewed every day, is continuous and doing good in your behalf at all times, costs only a little careful work on your part and is very satisfactory, not only to the patron but also to yourself. Do not depend on all sorts of schemes to attract attention to your studio, for tricks eventually hurt the trickster.

Do an honest, legitimate business, and while you may not rise "by leaps and bounds," your prosperity will be lasting.

Finally, we would advise you to take as many as possible of the good photographic magazines and study the methods of the best workers. Keep abreast of the times, and endeavor to go a little ahead of them. Work; plan; attend the conventions of the photographic associations, and you can learn much by coming in contact with your co-workers, and with a free exchange of ideas benefit both yourself and those whom you meet at these gatherings.

You will go home with new ideas, new energies, and fresh ambitions for the improvement of your work and business. This means new customers, more patronage, more big round dollars, and greater satisfaction with yourself and your profession.

NOTHING hurts quite so much as indifference. It makes you feel better to be roundly cussed by a man than to have him act as though he didn't know you were alive.

IF a big man can get from a small man a thought that helps, what an opportunity there is for the small man to grow if he'll study the ways of big men!

Ambition is a mental conveyance that carries the hustler to success.

The day of specialization and the night of recuperation are modern keynotes of success.

No achievement which you can clearly imagine executed is impossible for you to accomplish.

Opportunity will remain to justify thorough preparation as long as mankind rules the world.

Ambition, courage, study, sacrifice and toil are five essentials in the life of a great man.

PLATINUM PRINTING

Modifications Produced by Variations in Strength and Temperature of Developer

An Address before the Royal Photographic Society

BY W. H. SMITH

NORMAL treatment as recommended by the Platinotype Company, in their instructions, is undoubtedly the best for general use, but sometimes it is useful to know how to vary the results to a slight degree without the necessity of making special solutions. The normal developer is made up as follows: one-half pound of developing salts is dissolved in 48 ounces of water and kept as a stock solution. For use with the ordinary qualities of black paper, one part of the stock solution is mixed with an equal quantity of distilled water, and this developer is used at a temperature of 60 degrees Fahr., a few degrees more or less makes no appreciable difference, but it is not advisable to use it at less than 60 degrees Fahr.

The effect of slightly varying the temperature is not very marked, but a developer heated to 150 degrees or 160 degrees makes an enormous difference, with such a developer from 20 per cent. to 25 per cent. less exposure is required in printing, and it gives warmer toned blacks with maximum detail in the high lights.

A very cold developer should never be used, as it tends to make a granular deposit. The stock solution may be used cold without dilution in cases where maximum detail and cold tones are required, but it tends to give very intense shadows. A very dilute developer and normal printing gives granular and starved looking prints lacking in detail, but it may be used with advantage in cases of extreme over-exposure, although in no sense can it produce prints equal to those obtained by normal treatment. The effect produced by the use of a normal developer diluted with ten times its bulk of distilled water, on paper exposed from two to three times the normal, is to give prints of a rich, warm black tone, with very little detail in the high lights, and granular half-tones. Notwithstanding these defects, it may be found very useful for the treatment of certain subjects and pleasing results may be obtained.

Over-exposure and short development in a normal developer is often practised, but the results are never satisfactory, this treatment almost always gives mealy prints; some papers will develop more rapidly than others and will stand short development, but the only safe method is to leave prints in the developer for a few seconds longer than the actual time required. With developers at 60 degrees Fahr. not less than 30 seconds should be allowed for the development of each print, with hot developer four or five seconds is sufficient. Best results are always obtained by correct exposure and full development. If the exposure is right it is impossible to over-develop.

Varying the Scale of Platinotype for Use With Hard or Soft Negatives

Hard negatives are much more difficult to deal with than soft ones, unless sufficient light can penetrate the high lights to affect the sensitive surface of the paper, it is, of course, impossible to produce an image. Prolonged exposure

may give detail in the high lights, but at the expense of the shadows which would be over-exposed.

The maximum detail is obtained by the use of a hot developer. Old paper will give more half-tone than quite fresh paper. Black Japine will give more detail than the ordinary qualities of "black papers," this again can be increased by the use of a hot developer containing a trace of mercuric chloride, but the tone produced is a warm black. Printing under yellowish green glass reduces contrast but exposure is very much increased. It is also possible to reduce contrasts by the use of a slow developer (equal parts of strong developer and glycerine) applied with a brush. In this case printing should be sufficient to get detail in the high lights, then as development proceeds, the darker parts can be checked by removing the developer by means of a piece of soft rag. This method is interesting but not easy.

Soft negatives are much simpler to deal with, it is quite easy to get good black prints from flat negatives by adding a small quantity of potassium bichromate to the normal cold developer.

Hot developers are not so much affected by the use of bichromate. To get increased contrasts on sepia papers the addition of a little mercuric chloride to a hot developer may be used. The quantity of bichromate, etc., to be added, depends on amount of contrast desired and can only be ascertained by trial, one grain per ounce of developer produces a very marked effect.

Warm Tones on Paper Which With Normal Treatment Gives Cold Black Tones

For a very slight warmth of tone one of the best and easiest methods is to heat the normal developer to 160 degrees Fahr., but printing should be about 20 per cent. less than for a cold developer. It is advisable to use a thermometer if several prints are to be uniform in depth and tone. If undeveloped prints are steamed, by holding them over a vessel of boiling water, they will, after development in the normal cold developer, have a slightly warm tone. This method gives excellent results, but it is not convenient for large prints. To get warmer tones than can be obtained by above treatment, it is necessary to modify the developer, and probably the simplest way is to add a small quantity of mercuric chloride to the developer and to use it at 140 degrees to 160 degrees Fahr., two or three grains in 20 ounces of developer being sufficient to give a distinctly warm color. A greater quantity of mercury will give warmer tones but if carried to excess, the color produced is most disagreeable and not permanent. Developers containing mercury generally give double tones; this may be avoided to some extent by using a mixture of developing solution, glycerine and mercuric chloride, and by applying it to undeveloped prints by means of a brush, or by immersion; a brush usually gives the best results. The following formula will give warm brown tones:

Developer (stock solution)	10 parts
Glycerine	10 "
5 per cent. sol. of mercuric chloride.	2 "

Platinotype paper is very easily affected by the merest trace of mercury, so much so, that if an undeveloped print is placed for a few hours in a closed vessel containing a few crystals of mercuric chloride, it will, on development with a normal developer, give a warm-toned print; for this reason, great care is required to avoid any contamination with mercury when clean, cold black tones are required. Dishes and measures which have contained mercurial solutions should not be used for any other purpose, as it is extremely difficult to get rid of every trace of mercury.

Black Japine

Black Japine is a quality of platinotype paper recently introduced to meet the demand for a hard surfaced smooth paper. It does not gives such artistic results as the softer papers, but it has many qualities which make it invaluable for many purposes. The hard surface renders it extremely valuable for making prints which have to be exposed to rough usage, and the smooth surface is an advantage where fine detail is required.

Printing and other operations are the same as for the ordinary qualities of platinotype made for black tones, but a stronger developer is advised, and normally it is used cold. By the use of a hot developer, a very agreeable warm black tone is produced and a saving of 30 per cent. to 50 per cent. in time of printing.

A small quantity of mercuric chloride mixed with the developer increases the warmth of tone, one part of the mercury salt dissolved in 10,000 parts of developer is sufficient to give a decided warm color to the prints. This paper is so susceptible to the action of mercury that the effect of one part in one million parts of developer can be detected; for this reason it is absolutely essential that dishes and measures which have contained mercury should be thoroughly cleaned if they have to be used for other purposes. When clean, cold black tones are required, the best way is to use different developing dishes and measures.

The hard surface of Black Japine makes it eminently suitable for rough treatment, almost any degree of friction may be used without fear of injury to the surface, and there is no risk whatever of abrasion during washing operations. One valuable feature of Japine prints is the ease with which they may be cleaned without in any way affecting the platinum image; this is a decided advantage where prints are exposed to dust, or to much handling. Ordinary dirt may be removed by rubbing the prints with soap and water, grease by the use of any solvent such as petrol, stains by bleaching, etc. It is not necessary to use glass in front of framed Japine prints, because they are so easy to clean.

Black Japine is most useful for plans of machinery, etc., for workshop use; dirt and grease can be cleaned off and the prints returned to the office in a very different state to that usually experienced.

Sepia Tones on Black Japine

It is quite easy to get very good sepia tones on Black Japine by applying a mixture of glycerine, oxalate of potash, and mercuric chloride by means of a brush. A very good developer for sepia tones is:

Saturated solution of potassium oxalate 1 part
3% sol. of mercuric chlor. in glycerine 1 "

Warmer or colder tones are obtained by the use of more or less mercuric chloride.

If very warm tones are required, the time of printing should be increased, while for cold sepia tones the printing should be normal or rather less; the correct conditions can only be ascertained by trial.

It should be remembered that mercury toned prints are not so stable as those produced by normal treatment, therefore, when very warm tones are desired, it is best to use sepia paper. A small addition of mercury sufficient to produce warm black tones may be used with little fear of injury to the permanence of the prints, but when sufficient is used to produce very warm tones, there is a decided risk of injury, but such prints are fairly good if not subjected to too severe a test.

Platinotype Sepia Paper

Sepia platinotype is one of the most beautiful photographic printing papers in use at the present time, the results obtainable cannot be successfully imitated by any other process. It is well known for its artistic quality, beauty of tone and range of gradation. It is not only one of the most satisfactory processes for the production of photographs, but it is one of the easiest, probably the easiest, to work. At one time sepia platinotype required more care in working than it has done during the last year or two.

The paper may be kept for months without fear of deterioration, providing it is kept in a dry state, and this may be ensured either by keeping it in a sealed tube or by storing in a calcium tube. It is not so easily affected by exposure to damp air as formerly was the case. Some prints made from paper exposed to the atmosphere of an ordinary work room for twelve hours, could not be distinguished from other prints made from the same batch of paper used direct from a storage tube, thus showing clearly that

no extraordinary precautions are required in working sepia paper.

Sepia papers are remarkably uniform in quality, so much so that it would be difficult to detect any difference in paper made today with that of a year ago. There is considerable latitude in printing, that is to say, prints may be made light or dark without appreciable loss of gradation or blocking of shadows.

The sepia tone may be modified to some extent by varying the temperature of the developer, 160 degrees to 170 degrees is the best temperature for rich sepia tones, maximum detail, full gradation and transparent shadows. A cold developer gives cold sepia tones and loss of transparency. A difference in color and quality is noticeable for every 10 degrees variation in temperature of developer from 80 degrees to 160 degrees. If a batch of prints is required of a uniform color and quality, the temperature of the developer should be kept uniform.

Sepia platinotype is made in several qualities of paper, thin and thick, rough and smooth, and a smooth thick buff paper recently introduced, the latter gives beautiful results and is very suitable for reproductions of old masters, drawings, etc.

The importance of correct exposure and development at the correct temperature cannot be too strongly emphasized if full advantage is to be taken of the capabilities of sepia paper. For special effects, warm or cool developers may be used with over-exposure and short development, but this treatment cannot give the same color or gradation as the normal way of working.

(*Concluded next month.*)

LIGHTING IN PORTRAITURE

BY F. C. LAMBERT, M.A., F.R.P.S.

A LEARNED physician said: "Find out the cause and you are more than half way to a remedy." As somewhat of an enthusiast in the study of photographic portraiture for some long time past I would urge the advanced amateur, who has not already done so, to make a few precise experiments in lighting. In a vague and indefinite way the reader may have some *general* ideas or impressions that a reflector does this and a diffuser does that. But the practical point is this. Can he with ease, directness and certainty produce any effect of lighting he may desire? In studio or home portraiture usually we have three factors present, *i. e.*, direct, reflected and diffused light. What part precisely does each factor play in the total result?

General knowledge is good, but precise and definite knowledge based on personal experiment and experience is far better. This is the kind of knowing that gives confidence in action. My own experiments give me confidence in advising the *student* to accept the teaching of writers and demonstrators with respect, but also to *verify* by personal experiment.

I would suggest the following experiments in portraiture lighting: In place of a living sitter it is more convenient to employ a couple of busts. One may conveniently be of white or light plaster. The other may be of very dark plaster, but preferably of bronze. The white plaster will be lighter than and the bronze as dark as, if not darker, than

any human sitter that the big majority of workers are ever likely to deal with. If, then, we can *at the same time* control effects for these two extremes, any human subjects coming in between these extremes ought not to present any difficulties. A temporary stand for the two busts at convenient height was made by inverting an empty, shallow packing case, mouth down, and fixing into each of the four corners a broom stick of convenient length.

One essential, or at any rate desirable condition, in experimental work is the variation of one factor only at a time. For if more than one factor varies, the difficulty of connecting cause and effect is increased often to the confusion limit.

Fig. 1 shows the packing case stand on which is laid a sheet of *rough* white blotting paper. To our left is a narrow unscreened window with a fair angle of open skylight. At the four corners of the table-stand are light laths, turning on a screw so as to be easily turned out of way when not wanted. The general character of the light may be gleaned from the appearance of the plaster and bronze busts. It may be noticed that the cast shadows have softened edges.

Fig. 2 shows the arc of the four upright corner laths, against which (on our left) is leaning a light frame covered with thin "butter muslin," while on our right is a sheet of fine matt surface white card.

Now we have four conditions to consider.

Fig. 3. Direct light from the window only, *i. e.*, except as far as this is modified by the medium toned walls of my studio.

Fig. 4. Direct light plus the reflector.

Fig. 5. Direct light plus the diffusing screen.

Fig. 6. Direct light plus reflector and diffuser. The position of camera to objects remained the same throughout the four exposures, and the general character of the diffused daylight was apparently quite constant.

It will simplify matters to call the plaster bust A, and the bronze bust B.

We have now to consider the characteristic effects of the above four conditions of light arrangements.

Fig. 3. Note that with a sidelight of this kind the lights pass into the shades somewhat suddenly. Thus the nose in A has a conspicuously strong shadow, while its rounded adjacent cheek is somewhat modulated by form, but trending to flatness. The lighter side of the face is lacking in modulation. In B the same lighting prevails but note the difference of effect between the light subject A and dark one B. Had we seen these two apart from each other, *i. e.*, had the print been cut into two parts should we instantly have said these two heads were precisely similarly lighted? In B we cannot fail to notice the absence of detail in the shadows. The extreme high lights of B though very small are of much about the same value as those in A.

Here as in all the other following examples note should be taken of the strength and edge character of the shadows cast on the white blotting paper by the two busts. The cast shadows play a far more important part in portraiture than many workers realize.

Fig. 4 gives us the effect of introducing the reflector between the window and the busts. It will, I hope, be easily seen how this throws reflected light into the shadows. The worker when making his own experiments will, of course, compare the direct and the reflector prints point by point. It may be argued —quite soundly—that no one of any experience would in practical portraiture put a reflector so close as this to a living head. True, but by putting the reflector further away we are only altering the *quality* and not the kind of effect. Here it is easy to see the accentuated effect, and so I hope it may point the moral of moderation in all things.

Where we have an exaggerated reflector effect it is apt to suggest "cross-lighting," such as one gets with windows on opposite sides of a figure. The result is more often confusing than pleasing.

Fig. 5 gives us the effect of using the diffusing screen. Purposely I do not

"LIGHTING IN PORTRAITURE"

pause to point out differences in detail. What I am aiming at doing and hope to do is to stimulate the *student* reader to regard these illustrations not as object lessons to save him trouble; but as suggestions for the making of his own "personally conducted" experiments.

The skimming reader may say that he does not see any difference between the examples 4 (reflector) and 5 (diffuser). This is an important point. For, as a matter of fact, the results though differently obtained are similar in some degree but far from identical.

The reflector throws light onto the shadow side, and *into* the shadows—but does not alter the high lights due to direct light. Thus the scale of tones is *shortened at the bottom, i. e.,* shades and shadows lightened, but direct high lights not appreciably affected.

The diffuser stops some of the direct incident light, therefore the high lights are lowered somewhat but the greater part of the incident light passes through the diffusing screen, and is scattered in all directions. Thus some of this scattered or diffused light finds its way into the shades and shadows, so that the lower tones are lightened. Thus the scale of tones is shortened at *both* ends, and so contrasts are appreciably reduced. In practice it means that by lightening the shadows exposures are reduced; and this in spite of the fact that we have lost some direct light by using the diffusing screen.

Fig. 6 shows us the effect of using both the diffuser *and* reflector, and as one would expect we get a further reduction of contrasts and shortening of scale which may readily pass into a tame and uninteresting flatness.

So far I have chiefly mentioned length of scale of tones, because this lies at the root of the matter, but it is by no means the only effect to be noted.

Each of the four systems above named has its own character which the student must "study out" for himself if this note is to be any real good to him. But I may give a hint or two on broad lines just as starting points.

Note how the four systems affect the general *modelling* and roundness of the head and bust. Then follow up this hint as it affects the *features* of the face, softening or hardening the lines of eyes, nose, mouth, etc. This in turn means modifying *expression* and *character*. It is a commonplace to say that the style of lighting that suits a young, smooth face is not suited to an old and wrinkled one. Why? Does your study so far enable you to feel exactly why this is so? These four prints contain, at any rate, the chief part of the answer. I quite anticipate that when these four prints appear that many readers will be disappointed to see so little difference. It would have been easy to have accentuated the difference. But this would have encouraged the half lazy ones to take them "as read," which is just what is not my desire. One word more. Although we are "on" portraiture lighting for the moment, do not drop into the notion that portraiture lighting is in any way a thing apart from the lighting of landscape, buildings, still life, flowers, etc. In all indoor work (portraits, still life, etc.), we can to some extent control the lighting by screens, curtains, etc.; but in outdoor work we just have to wait for Dame Nature to move the cloud curtains and atmosphere screens about till they are what or where we want. The portraitist can learn a good deal on a breezy day of sun and cloud by watching a landscape, buildings, etc., as the clouds are shifted and lighting varied. Who of us has not noticed how the cast shadows appear to darken and sharpen when the sun comes out? But have we noticed *how much* of this effect of apparent addition of blackness to the shadows is in part due to the shortening of the scale at *both* ends when there comes along a diffusing screen of light cloud, softening the direct light and scattering light into the shadows, just as we did in a very miniature way with our butter muslin cloud in fig. 5.

Specialization is all very well in its way and is generally desirable in reason. But there is no greater mistake than to

go through life looking at everything through one little narrow tube only. The picture maker appeals to the larger of human nature, *i. e.*, the emotional side, which has no limits, no boundaries. The man who is going to make fine portraits cannot fail to *appreciate* fine landscape, or architecture, though he may not have time to study such other branches in detail. Yet the broad principles of all pictorial art are the same. The portrait maker may learn enormously from seeing fine landscape and *vice versa*. It is principles not precepts that the student should seek to make his very own. To feel quite certain of the connection of cause and effect is to make one a master of producing effect.

AN 'EVER-PRESENT' RAY FILTER

BY A. E. SWOYER

THE days of the landscape or other photograph in which the blue sky appears a uniform white, green foliage as black as the inside of the Mammoth Cave, red roses and yellow daffodils alike of ebon hue—together with similar monstrosities—is passed. And as with the landscape, so with the other subjects of photography; even the small boy would rather have his freckles appear in the size and dignity of pennies than to suffer the unnatural whiteness produced by the spotting brush. In short, both the public and the photographer have been educated and "photography as the eye sees it" is no longer regarded as advanced and freakish.

Such education has inevitably increased the use of the orthho-chromatic plate and the ray-filter, with vast benefit to the profession. It is not the purpose of these brief notes, however, to enter into a discussion of correct rendering; rather, admitting the benefits of the filter, it is our purpose to add to the convenience of its use.

Filters are neither expensive nor difficult to obtain; they have but one great fault, and that is a tendency to be left at home. When so treated, they at once become of great value; of a worth exactly proportionate to the distance in miles between "that beautiful cloud effect" and the exact drawer in the studio in which reposes the little piece of yellow glass.

The illustration shows a way of overcoming this tendency; the method, in short, used by the writer for making his filter unforgettable. The principal part of the outfit is simply a strip of brass a little longer than the circumference of the lens barrel; holes are bored through the ends of this piece so that it may be bent into a circle and clamped in place as shown by means of a small wig-bolt and nut.

The method of hinging the filter to this collar may be varied to suit the taste of the user as well as the shape of the filter. The one used by the writer is of the square type, the glass itself being home stained and then mounted in a wire frame by the local optician; a portion of this frame was carried up to hinge upon a wire soldered to the bottom of the collar. However, the mounting for any type or shape of glass should not overtax the intelligence of any optician.

The fact that the filter is "ever-present"—being swung up when you need it and down when you don't—is apparent; but another advantage or so is not quite so readily seen.

Suppose then that you are going to take a photograph over the water with the light reflected in such a manner

End View of Frame

that without the use of a lens hood the result will be flat and foggy; instead of making a paper cone or adopting any of the other substitutes usually suggested for such emergencies, just swing up the filter as far as needs be to cut off the reflections. Or suppose that the light is overhead and shining down into the lens; loosen the collar and turn it around so that the filter is above the lens barrel—drop the filter a trifle and there you are. In cases like these you might have accomplished the same effect by fishing a loose filter from the innermost recesses of your war bag and slipping it over the lens—but you would also have increased the exposure from two to twelve times depending upon the depth of the filter and the variety of plate.

In short by attaching the filter to the lens mount in this manner you not only have an unforgettable ray screen, but you have a dust cap for your lens, and a lens hood as well, all combined at a cost but a few cents greater than that of the common filter alone.

HOW TO MAKE A STUDIO PAY

V.—HOW TO KNOW THE PROFITS

BY FRANK FARRINGTON

MERELY opening a studio and succeeding in getting enough patrons to keep you busy does not necessarily mean making money in the business. It often occurs that the merchant or the photographer who does more business than any of his competitors makes less money than any of them.

There is too much attention paid by the average business man to developing a big volume of business and not enough attention paid to seeing that each transaction pays a net profit. Volume of business is not difficult to secure. Net profit—a substantial sum left over at the end of the year—is one of the most difficult things to secure.

The photographer ought to know something about his business other than the amount of his gross receipts and the amount of his expenses. There are many kinks in the business of buying and selling which make it possible that with receipts for the year definitely larger than expenses there may still be a loss.

There are certain rudimentary facts that every photographer ought to know about his business. He should know his total receipts and expenditures month by month for the year. He should know his gross profit and his net profit. He should know the percentage expense of doing business and of course he should know his inventory for each end of the year. Unless a man knows all these things at least he cannot know whether or not he is successful.

There should of course be kept a daily record of receipts and of expenses. The record of receipts ought to be so divided

that the framing business, the photographic work, and the sale of supplies, etc., shall each be kept separate. A man should know the details of the business done in each department in order that he may know whether each is paying a profit over and above its share of the expenses.

In the list of expenses the proprietor's salary should be included. It seems foolish to some men to include their own salary in the expense list, particularly when they are employing no help and when they think that all the money they get above the cost of supplies, etc., is profit and can be used for living expenses.

They miss this point: Unless you are getting a net profit over and above the amount of salary you could earn working for someone else, you might better put the amount invested into a savings bank where it would draw interest, and take a position where you would get the same return without the present responsibility and risk of loss.

It may be that you will not think it necessary to live on the salary allowance you make yourself, but if you do take out more money than the salary on which you could live if you would, then this extra withdrawal may be included in the profits of the year. You are, of course, at liberty to use your profits as you see fit.

In listing expenses, include, of course, rent, insurance, taxes and water rent, if you own the building; interest on the amount you have invested in the plant, depreciation on your equipment (which may be figured at from 5 to 10 per cent. annually), employees' wages, breakage, etc.

The items of freight and express ought to be added to the cost of goods bought, though transportation on equipment would be an expense item.

The cost of supplies used in making photographs might be called expense, but I believe it is better to make a column for goods bought as against that of receipts from sales of photographs taken, considering the making of a sitting and the delivery of the pictures as a sale, the price of which is regarded as gross receipts, and the supplies used as cost of the goods sold.

Of course it would be difficult to know just what the material costs that enters into making a dozen photographs, but with a careful record of cost of supplies used in the dark room, it is a simple matter to strike the average.

The gross profit of the business is the difference between the cost of the purchases of the year and the total receipts, while the net profit is what is left by taking the total expenses from the gross profit. This net profit is the figure that needs to be watched.

The percentage expense of doing business is a thing that receives too little attention, and a few years ago nobody bothered to figure it out. It is of particular importance in enabling the dealer to estimate at what advance he should mark the goods he has for sale. If you do not know what percentage of your receipts goes for expenses, you do not know how much profit to charge on what you offer for sale. If you know that 20 per cent. is your expense percentage (finding it by dividing your total expenses by your gross receipts), then you must, in order to come out even on the sale, add to the cost of the article 25 per cent. of that cost which is equal to 20 per cent. of the selling price. In other words, in order to get just expenses and no more you must add to the cost a sum equivalent to 20 per cent. of the selling price.

In order to make these principles plain and in order to show how they may be applied to the different departments of a studio business, let us suppose a studio with a gross business of $4,500 per year, divided as follows, receipts from framing, $1,000; receipts from sale of supplies, etc., $1,000; receipts from photography, $2,250.

We will assume that the photography occupies 6/10 of the proprietor's time, the framing 3/10 and the selling of goods 1/10.

We will assume further that the photographic work consumes $900 in supplies and that the expenses of operating the studio, including a salary of $1,000

for the proprietor, are $1,500, and that the cost of materials used in framing is $500 and the cost of goods sold is $750.

Let us see what the financial condition is of each department of the business under the above assumptions.

Taking the photographic end first with its $2,500 receipts and its cost of supplies at $900 we must add to that $900 6/10 of the expenses of the business or of $1,500, which would be $900 more. Thus the actual cost of the photographic end of the business in money is $1,800.

With regard to the framing department, to the $500 in the cost of material must be added 3/10 of the general expenses, or $450.

In the supplies department, to the $750 cost of goods, must be added $150 expenses.

Here we have the photographic department paying a net return of $700, the framing department a net profit of $50, the sales department a net of $100, making a total net profit of $850.

The man who might find his business in this situation would naturally feel that the framing department was not paying its way and he would set about increasing his profits there. As a matter of fact the framing does pay a profit, but not in proportion to the amount of time it requires, and there ought to be an investigation of prices to see whether they might not be raised without losing custom.

The percentage cost of doing business as above is, of course, 33⅓. This would be too high for a supplies department or for a framing department, but in this case, the long profit of the photographing department takes care of the costs.

The above example is not cited as typical in any way, but it is given in order to show how the departments of the business may be divided and expenses apportioned. The division of expenses might be very different in your business, but the same general plan can be followed and thus the photographer may determine what departments are paying a profit and how much profit, and he may adjust prices and methods accordingly.

Inventoring stock is a thing that is absolutely necessary if a man is to know where he stands. You absolutely cannot find out what your actual net profits are for the year without an inventory which will give you the amount of stock with which you started and the amount with which you finished the year. The references previously made to net profit for the year assume the stock to have remained the same.

If you have increased your stock or equipment by $450 you will find it necessary to add to the apparent net profit this increase in the inventory. If there has been a decrease in the inventory, it will be necessary to subtract the amount of the decrease from the apparent net profit. Thus it may be seen that a man might have a large stock at the beginning of the year with an apparent net profit of $350 have an actual loss if his stock had been reduced by $400.

Too many photographers are afraid of figures. They have such a dislike for keeping accounts that they go ahead and trust to luck to pull them through all right. If they happen to succeed it is in spite of their methods rather than on account of them.

If you have no interest in keeping the figures of your business for your own advantage, you ought to consider it from the point of view of your family who may one day be left with a studio to sell and no way to show prospective purchasers whether it is a paying or a losing proposition. The first thing a buyer will want to know about your business, whether it is offered for sale by you or by your widow, is what profit it pays, how much stock it requires to swing it, what the expenses are. The careful buyer will want to see your cash book and your bank book, your invoices and your inventories.

The chief reason why photographers do not take inventories is that they dread them. It is not such a task to inventory the stock as you think and certainly is an eye-opener, even to the man who does it every year. I never knew a business man to take an inventory without dis-

covering something he did not know he had.

If you take an inventory for no other reason, take it anyway for the sake of protecting your fire insurance. You carry a certain amount of insurance and you think it protects you in case of fire. I hope it does, but unless you have an inventory by means of which you can show the adjusters that you had the stock you claim, you will have trouble in getting a full allowance of the loss. Fire insurance adjusters are the kind of men who insist on being shown. They take nothing for granted and they do not allow you to draw on your imagination.

The inventory for fire insurance purposes ought to be taken in detail, not merely lumping the goods in a certain department or room. The insurance adjuster will not be satisfied with the "lumped" method. The inventory when completed ought to be kept at home if there is no safe in the studio. It is good business to keep the home inventory and insurance papers in the business place and the business papers in the home. Don't guess at what your insurance policies contain. Read them and know. A good many men have lost their insurance because they had never read their policies and thought conditions were so and so.

Previous Articles, "The Man and the Location" (Oct.) "Buying and Arranging the Stock" (Nov.) "The Treatment of Customers" (Dec.) Subject next month: "Credit and Collections."

TRANSPARENCIES FOR THE LANTERN AND STERIOPTICON

BY GEORGE SMEE

THE time of year being now at hand for the exhibition of the work done during the holidays and summer vacations, either in the way of prints or transparencies for the lantern, from the negatives, both film and glass, no matter which, for, in either case, the best transparency obtainable is aimed at by everyone who has taken considerable pains to secure good negatives of some scene or view that has been visited by the camera-ist, that will form some pleasant recollection of the past summer and remind one of some of the past spent happy days, so the making of good transparencies, the best that can be made, is an item not to be overlooked. Many devotees of the camera have their what may be termed "pet developer," and there are certainly a number of developers to choose from. The one I always use for the result that suits my negatives best, is one that will give clean, clear high lights and a clean cut black in the very deep shadows. This kind of slide gives a more brilliant effect, than one that possesses a thinner and consequently flat appearance, and lacking in contrast. A good brilliant transparency can be made by the use of a developer made according to this formula, which can be made as a one-solution developer. It will keep well two or three weeks after mixing, and can be used several times over, by adding some of the stock solution each time it is used. To get the best results, the developer should be used when newly made, the bottle containing it should be kept full so as to nearly reach the cork.

Developer:

Distilled water (hot)	10	ounces
Hydroquinone	30	grains
Metol	10	"
Sodium Sulphite	90	"
Potassium carbonate	100	"
Potassium bromide	6	"

The developer must not be used until it has become quite cold. All being ready, expose a transparency plate, then under the ruby light of the dark room lay the plate, back down, in a clean 4 x 5 tray. I say 4 x 5, because this is more

convenient, and holds a sufficient quantity of developer for perfect development. This is the size I always use for a lantern plate. Pour over it about two ounces of the developer, place it aside from the ruby light, so that it is shielded during development, keeping the tray in motion. In the course of a short time, the view will become apparent in a clear and decided manner, as an intense black image upon a white background. In the course of one minute the plate may be examined, the density being obtained by examination before the ruby light. If the right density has been attained, the plate must now be washed and fixed in the usual way, at all times using a clean, new fixing bath (that has been filtered.) Time and again, what would otherwise have been a perfect transparency, is spoiled, or marred by dust and sulphur specks contained in the fixing bath. I always let the plate remain a quarter of an hour in the fixing bath, to insure complete fixing, then wash the plate for half an hour in running water, before placing it in a rack to dry. If the exposure has been timed right, development to full density will take about one minute, if the time has been short perhaps a minute and a half may be required, when the plate must be quickly washed, and placed in the fixing bath. The more this developer is used, the softer will be the resulting image. In this respect it resembles pyrogallol, with the exception that it is free from yellow stain. Finally, to be successful in making transparencies, see that all the utensils are quite clean; this precaution will be the means of saving many transparencies that would otherwise be spoiled, bearing in mind that the picture in this case will be magnified many times, and that all defects will be magnified in the same proportion.

AN INNOVATION IN NIGHT PHOTOGRAPHY

BY CYRIL NAST

FEW people are familiar with the fact that night photography in this country originated with and has grown up with the photographic department of The New York Edison Company. Furthermore no work along this line today can begin to compare with that of the men alluded to. The numerous imitations produced by means of pigment, generously though cleverly applied, are only too evident.

It all started one winter's night back in 1900. The chief photographer of the New York Edison studio had conceived the idea that a photograph by night was a reasonable possibility. He forthwith appeared some time after nightfall on one of the less frequented streets of Yonkers, set up his camera, and regardless of the promiscuous criticism of bystanders proceeded to photograph. The result was reproduced in the next issue of the Bulletin of the New York Edison Company, now known as the *Edison Monthly,* and needless to say created a sensation.

The experiment, though admirably successful, revealed two primary weaknesses in the process, the need of a special plate and of a more adequate developer. The months following witnessed some thorough work in these particulars and terminated at length with the discovery of a developer suited to plates long exposed. Through this means the halation difficulty was done away with.

Nothing now intervened to prevent the taking of those popular views of night-

WHAT RETOUCHING IS DONE ON THESE SUBJECTS IS PERFORMED SO CLEVERLY THAT IT DOES NOT DESTROY THE NATURAL EFFECT. THIS PICTURE WILL BE IMMEDIATELY RECOGNIZED AS THE SKY LINE OF NEW YORK, SEEN FROM BROOKLYN.

time in New York, especially the downtown sky line with its multitude of lights. As these appeared from time to time, interest in the new art spread rapidly. Inquiries began coming in in bundles as to the exposure, the developing, and other phases of the process, while visitors were welcomed (as they are today) and shown through the studios from start to finish.

Notwithstanding these opportunities, all without exception seem to have missed the point. The old method of starting the exposure some time before nightfall and continuing it until shortly after the lights come on is still in vogue, and as at first intimated, in most cases further embellishment has to be added by brush and paint in spots where lighted windows are supposed to shine.

The equipment of the new Edison studio, opened in the lately completed Edison Building at 124 West 42nd Street, should prove of interest. That it ranks among the three or four most complete in New York is readily apparent. First of all come the eighteen "working" cameras most of which are out daily on assignments in different parts of the city. In addition to these are found the latest improved copying and lantern slide cameras. The developing room is not unlike the modern university chemistry laoratory in appearance, each of the men being provided with his own sink and apparatus. The same plan has been carried out in the printing room where the sinks and tables are similarly apportioned. As far as is known the dark room is unique of its kind by virtue of window communication with outdoors, a scheme insuring plentiful and healthful ventilation. Another factor of unusual interest is the capacity of the enlarging room where work of 16-foot size is handled repeatedly. One does not overlook, moreover, the great steel negative cabinets in the main studio whose shelves display, at present, forty thousand plates.

Not unnaturally every electrical convenience and device that would apply has been installed. For example, flanking the big copying camera stand two of the powerful Bogue lamps, each of twenty amperes or the equivalent of five thousand candle power capacity. Here is also an electric hot air drying machine or blower used with hurry-up plates and prints. In the same room is a vacuum cleaner employed in searching out dust and dirt in the unget-at-able parts of the cameras and lastly, a motor grinder for the various trimming knives and cutters.

The printing room boasts of one of the new automatic printing machines fitted with a ten ampere arc. Present also is a printing lamp using four 150 watt tungstens. Several electric fans of different sizes are discovered busy drying negatives and ferrotyped prints. The room affords in addition another of the drying devices before mentioned, this one being of the smaller or hand variety.

In the developing room, immediately at the rear, is shown an electric disk stove of great usefulness in mixing developer and in the winter season in removing the chill from the developing fluid.

Facilitating the enlarging work is a twenty-five ampere arc of the "Aristo" type, near which hangs another of ten ampere designed for lantern-slide work. In connection with the slides is provided an up-to-date stereopticon machine used in the trying-out process. Here moreover is located a five ampere iron which evidently has seen strenuous service in dry mounting work. The entire studio, to conclude, is equipped with an effective electric ventilating blower system which favors all apartments.

Among the better known productions of these artists is the series secured at the time of the Hudson-Fulton Celebration. These pictures were recognized at the moment as pre-eminently the best obtained and were widely reproduced, not only in this country but in Europe and South America. The great fleet mobilization in the North River last fall was another occasion taken advantage of. Especially notable was the photographing of certain of the illuminated dreadnaughts in motion. The several photographs issued in post card form were distributed at the Electrical Exposition

NIGHT PHOTOGRAPHY OFFERS, PERHAPS MORE THAN DAYLIGHT, A DEMONSTRATION OF WHAT ARTISTS CALL "AIR PERSPECTIVE." NOTE THE DEPTH OF COLOR IN THE FOREGROUND AGAINST THAT IN THE DISTANCE.

shortly after, and even at present requests for further copies have not ceased to arrive. Still another opportunity was later afforded by the welcome to Cardinal Farley, views of which, both night and daylight, were generally sought as the most adequate procurable.

Nor must conspicuous and picturesque events, such as these, be waited for. The public is frequently favored with novel subjects, original themes and conceptions, from this quarter. Great night panoramas of the upper and lower city, the lights of downtown reflected in the river, pavements agleam on rainy nights, are but suggestions of an extended variety of like accomplishments. And, in common with the science it illustrates, this new photography promises still greater triumphs for the future.—THE GRAPHIC ARTS.

IRON OXALATE DEVELOPER FOR PAPER AND PLATES

BY "PROFESSIONAL"

AT the present time there are so many developers for use with developing papers and plates as well as films, so many variable formulæ, that one becomes bewildered when one has to decide as to which developer he should use.

In my experience I have found that for soft effects, and a perfect rendering of all that can be gotten from a negative that a well and carefully-made developer from the salts of iron is not surpassed by any other make.

It is not very long ago that I received an order for four prints upon sheet opal 10 x 12. Enlargements of a child sitting upon a roughly-improvised rock, with a whip held by both hands across the lap. It was a very charming picture and I was anxious to get the best results possible. Two exposures were made, each one differing in time, and developed with a metol hpdroquinone developer. They turned out to be very good, but I was not satisfied with the general quality of either of them, so I determined to make up a new developer in the proto-sulphate of iron and oxalate of potash; in fact, I made two developers from two different formulas, and made a trial from each upon two 5 x 7 bromide opals, taking only the head and a part of the body upon these trial plates, at the same distance from the lens that would be employed in the enlargement; by this means the trial plate would yield the same result as the enlarged portrait upon the 10 x 12. Upon the development in the No. 1 developer, published herewith, the image developed soft and brilliant, not quite so rapid as with the metol hydroquinone developer, but the quality, was just what I wanted, and, when fixed in a clean, new fixing bath, nothing could be better wished for in the general quality of a good enlargement. No. 2 developer was put on trial with the second 5 x 7 plate, and that, too, gave a perfect portrait, clear and soft, with a little more snap than No. 1; in fact, for a well-defined image with all detail well rendered, without any clogging of the high lights, both these developers gave such results that left nothing to be desired. The finished portraits enabled me to get easily, the price charged, the after working up of any defect was very small. As exemplary productions by photography, they proved to be highly satisfactory to producer and customer alike. The following two formulas are those that I used, which, by the way, I have found to be equally good for paper as they did for the bromide opals.

FORMULA No. 1A.

Filtered water (hot)	90 ozs.
Oxalate of potash	24 ozs.
Acetic acid	4½ drams
Ammonium bromide	30 grains.

FORMULA No. 1B.

Hot water	34 ozs.
Proto-sulphate of Iron	16 ozs.
Citric acid	40 grains.

The developer is made up of twelve ounces of A, to which is added two ounces of B. A ten per cent. solution of bromide of ammonium should be at hand in case of slight overexposure.

FORMULA No. 2A.

Oxalate of potash	8 ozs.
Hot water	40 ozs.
Bromide of potassium	20 grains.

FORMULA No. 2B.

Proto-sulphate of Iron	2 ozs.
Water	16 ozs.
Sulphuric acid	8 drops.

Developer is made by mixing eight ounces of B No. 2, with sixteen ounces of A No. 2. In either formula add the B solution to A. When development is complete, wash the plate or paper print well, after which fix in a freshly-made hypo bath, to which has been added a small quantity of Solio Hardener, made as follows, which I always prepare a day before use, and filter:—

Hyposulphite of soda	12 ozs.
Water	3 pints
Solio hardener	2 drams.

The image clears up and becomes thoroughly fixed in this solution, which must not be used to fix too many prints; well washing for an hour will free the film of hypo, and a wiping of the surface, opal or paper with a soft sponge or cotton, when the washing nears completion. Solio hardener is made by dissolving

Chloride of aluminium	3 ozs.
Bi-sulphite of soda	2½ ozs.
Water	12 ozs.

Any trace of a yellow stain in a bromide print can be cleared by using the following preparation, which may require half an hour, perhaps one hour. It has always been found efficient in clearing away any light colored yellow stain, should this occur.

Saturated solution of oxalate of potash	16 ozs.
Acetic acid	2 ozs.

The second formula will also answer for the development of both negatives and films.

Photographers who still cling to pyro as the developer *par excellence* often find that when an ounce of pyro is made up into solution, it often loses its developing power before the amount of solution is exhausted. By carefully making up the pyro solution after the following formula, and bottling it in two-ounce stoppered bottles, it will preserve its full power until the last drop has been used: Dissolve pure sulphite of soda, 4 ounces, in 10 ounces of cold boiled water; add 1 ounce of pyro, and then ¼ ounce citric acid. Keep the mixing bottle corked during the processes of dissolving the ingredients, and bottle up in the smaller bottles as speedily as possible.

THE temper by which taste is formed, is characteristically patient. It dwells upon what is submitted to it. It does not trample upon it, lest it should be pearls, even though it looks like husks. It is a good ground, soft, penetrable, retentive; it does not send up thorns of unkind thoughts to choke the weak seed; it is hungry and thirsty too, and drinks all the dew that falls on it. It is an honest and good heart, that shows no too ready springing before the sun be up, but fails not afterwards; it is distrustful of itself, so as to be ready to believe and to try all things, and yet so trustful of itself, that it will neither quit what it has tried, nor take anything without trying. And the pleasure which it has in things that it finds true and good is so great, that it cannot possibly be led aside by any tricks of fashion, or diseases of vanity; it cannot be cramped in its conclusions by partialities and hypocrisies; its visions and its delights are too penetrating, too living, for any white-washed object or shallow fountain long to endure or supply. It clasps all that it loves so hard, that crushes it if it be hollow.

A FEW IMPORTANT POINTS IN COMMERCIAL PHOTOGRAPHY

BY W. J. SMITH

THE increasing demand for photographic illustrations to assist in the buying and selling of commercial articles is very apparent, and as the demand increases so must there be a corresponding demand for specially trained workers. The training necessary to become a really successful operator should embody an organized course of study, so that all working conditions can be as far as possible "standardized." Standardization is a most important consideration in modern work and is the outcome of study coupled with observation, commonsense and adaptability. The principles that govern the work of a commercial photographer are a mixture of science, art and business capacity.

Should the worker himself have to obtain his customers, he must realize the fact that when dealing with a man of business time represents money, therefore be brief, but well to the point, exercise tact (not bounce) and try and adapt yourself to the mannerism of each customer. The commercial client usually requires quite a different class of reproduction from the artistic one; the former, like the general public, appreciates bright, telling results that show the selling qualities of his goods, the artistic client appreciating photographs that are full of gradation, softness, and show all artistic value the original possesses. "Advertisement is the life of commercialism," therefore the advertising side of the department must receive careful consideration, and tastefully mounted specimens of the different qualities of work should be displayed so as to command attention. The artistic principles are applied when arranging the articles to be photographed, see that the point of view and lighting are adjusted so as to display them to the best advantage. The combined artistic and scientific principles must be used when selecting and determining the focus of lens to be employed for a given subject. Undoubtedly the best and most pleasing photographs are those taken with long-focus lenses, 12 in. on a ½-plate, 16 in. to 18 in. on a 1/1-plate; this especially applies when reproducing objects of a round nature and where there is considerable modelling. Short-focus lenses flatten out modelling and roundness, and elongate objects near the edge of the plate, but sometimes it is necessary to use them, therefore the point of view must be arranged so as to minimise as much as possible any distortion they may appear to give.

Long-focus lenses of the anastigmat type are expensive, but the greater speed obtained when exposing and the higher quality negatives soon repay the original outlay. Many photographers who possess a good modern lens still adhere to the old-fashioned method of using small stops ($f/45$ or 64); the lens, however, would work quite as well and even better at $f/16$ or $f/22$, with an economy of exposure. In the pre-anastigmat days it was necessary to stop down to eliminate the defects from which the lenses suffered; this ancient habit still attaches itself to some present-day photographers, although they possess a modern lens of first-class quality. Stop down to secure depth of focus, this often being obtained at $f/16$ with an anastigmat working at $f/6$. Cinematograph pictures are good examples of what excellent work can be produced by using large stops.

ENLARGEMENT FROM 4 X 5 PREMO. BY E. H. HITCHCOCK

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In object work photography, such as the reproduction of articles for catalogue illustrations, the lighting must be carefully adjusted to show the quality or texture of the original. The difference between an ordinary piece of calico and silk is the texture, and this must be indicated in the reproduction. The difference between an ordinary picture and one by a gifted artist is the quality the genius of the artist has enabled him to impart to the picture, and the successful commercial photographer will be the one who recognises what essential points his photographs must show. The various varieties of dry plates and printing papers should be studied in order that they may be intelligently selected for the work in hand; this latter remark especially applies to color-senitive plates and filters. The ignorance displayed in this direction is very noticeable, also in the selection of the developer and in the subsequent development. Standardize all negatives so that they are the correct contrast for the printing processes employed and the right density for the light source used. This is a very important point to remember, especially when a considerable number of prints are required. The pyro developer is undoubtedly the most economical and best developer for the general run of commercial work, as the deposit of silver given is very light-resisting. The negatives must not, however, be overdeveloped, but kept on the thin side, which will enable prints to be obtained very quickly. For black and white copying and where extreme density and contrast is required, hydrokinone is to be preferred, but this developer is very sensitive to changes of temperature and will almost refuse to work below 57 degrees Fahr. This latter fact should be remembered when metol-hydroquinone is employed for bromide paper or plate development, as metol will work at a much lower temperature than hydroquinone, the result being negatives of no printing value or prints of a weak gray color. Glycin is a developer that deserves more attention. being particularly useful when making color negatives, provided the exposures have been full and the temperature of working room above 60 degrees Fahr. The temperature of the dark room is a very important point, and if development is to be standardized must be about 60 degrees Fahr.

A thermometer is as necessary to consult before development as an actinometer before exposure. Regard the latitude of the plate as divided into three parts—short exposure, normal exposure and full exposure. For example, short exposure on flat subjects, or when working against a soft light, and forced development will frequently produce a bright negative. Normal exposures and varying times of development will flatten or brighten contrast. Full exposure gives different densities according to the time of development. Short development will give soft negatives from contrasty subjects. Subjects that are likely to show halation will come under the third division, but development must be curtailed.

All these items have to be considered before it is possible to standardize them, and they can only be intelligently worked after careful study and application. Remember, the more knowledge acquired by systematic study, coupled with the power to deduce from that knowledge and skilfully applied in practice constitutes the stock-in-trade of a clever workman.—*Penrose Pictorial Annual.*

An experienced worker claims that by washing a deeply stained pyro-developed negative with a strong solution of washing soda and alum, its color may be changed to that of a negative developed with methol or eikonogen. Whether the risk of dissolving the gelatine film does not offset this advantage is not stated. For our part, we believe that the pyro-developed negative gives by far the finest printing image of any.

BY THE MISSES SELBY, N. Y.

BY THE HEYN STUDIO

OMAHA, NEB.

BY THE HEYN STUDIO

OMAHA, NEB.

CONGRATULATIONS AND A LITTLE VAIN-GLORY

The Anniversary number of WILSON'S has come and the verdict is immediate and unanimous.

Charming in appearance and get-up—contents most interesting and instructive.

To me the "Memories of WILSON'S First Editor" and the reproductions of the stunning portraits by David Octavius Hill were specially delightful.

You have my heartiest congratulations and best wishes for keeping WILSON'S high class and up-to-date.

B. J. FALK.

I am in receipt of the copy of WILSON'S MAGAZINE, which I have examined with a great deal of interest, especially the article on "Memories of Wilson's and Its First Editor." The magazine bears every evidence of care in its preparation, both as to matter and execution. You have my very best wishes for a successful future.

GEO. EASTMAN.

I have a copy of the 50th Anniversary issue of WILSON'S PHOTOGRAPHIC MAGAZINE which I expect to read from cover to cover. It looks to me like the best photographic publication that has appeared in a long time.

I wish you success in your step forward and believe it will meet with the recognition it deserves.

You may place my name on the list as a subscriber from now on.

WILLIAM H. RAU.

The Anniversary number is a startling success and you are to be congratulated. It's big, fine and helpful from cover to cover and the *best* of all photographic magazines. PEARL GRACE LOEHR.

I have not had the opportunity of reading the current or Anniversary number of "WILSON'S PHOTOGRAPHIC MAGAZINE." I promise myself that pleasure in the near future, but what can be gained from a casual survey, both as to text and illustrations, you certainly deserve lots of credit for bringing out well, the most ambitious undertaking that I have seen between two covers, of a periodical of its class.

As I glance over the number before me it takes me back to my meeting with Mr. Wilson, in his office, then located on Seventh Street, north of Arch, in the good, old town of Philadelphia. A kindly greeting to a young man on the threshold of his career, which I have always remembered with pleasure.

It would seem to me a peculiarly happy task, that which you have set before you —a dignified exploitation of a great, and coming greater—Art, both from its commercial and artistic possibilities, a great field lies before you and I wish you all success. A. F. BRADLEY.

I am in receipt of the 50th Anniversary number of WILSON'S MAGAZINE, and desire to compliment you, not only upon the attractive appearance of the journal, but also upon its interesting contents. G. CRAMER.

I have very carefully looked over your number of WILSON'S MAGAZINE, and must say that it ranks well up to the top of *any* issue of *any* photographic magazine that I have ever known.

The reproductions are most beautifully done, and the scope of Creation is deserving of great commendation.

E. B. COKE.

I am late in thanking you for the copy of the Jubilee number of WILSON'S, but I wanted to look through it first. Let me now congratulate you upon a very wonderful number, full of good things,

and especially rich in its illustrations. It was a happy thought to get a photograph in colors from life for the frontispiece, and the many reproductions of examples by the older masters in portraiture are exceedingly interesting. That little screed of mine did not deserve the place you gave it, but I am glad now that I sent you just the thoughts I did send, because it seems fitting that in this Jubilee number there should be some hint of the old-time work of the magazine and its editor.

I am hearing all sorts of good things about this number, and feel sure that it is going to be a big help to you in re-establishing WILSON'S in its old-time place of honor and primacy.

With every good wish.

JOHN A. TENNANT.

We desire to express to you our great pleasure on the appearance of the WILSON'S Photo Magazine. The new cover, the beautiful illustrations; the fine type; the choice matter; and the fine general appearance of the new changed WILSON'S MAGAZINE will not only commend itself to the entire trade, but has attracted great praise and the change is very opportune at this time, as there is a decided movement for new goods throughout the entire photographic business, and you certainly have not only done great credit to yourself, but great benefit to the trade, and have also placed yourself in a position to be in line for a great share of the advertising that is sure to come in the very near future.

It gives us pleasure to write this, as we know the hard work that has been done by you, which shows itself strongly in the new magazine, but cannot show the great depth of your energy to reach this presentment.

With our earnest wishes for your deserved success, we are,

GEORGE MURPHY, INC.

I thank you for the copy of the fiftieth anniversary issue of WILSON'S PHOTOGRAPHIC MAGAZINE.

It is a splendid number from the standpoint of its typography, as well as the interesting text matter. You certainly deserve great credit for having brought up WILSON'S to its present high standard.

A. C. LAMOUTTE.

Heartiest congratulations on the Jubilee issue of WILSON'S. From the front cover to the back it's good and the frontispiece is a perfect example of color printing. Dr. Mees' article is especially interesting, as this is the first time that exposure has been treated from the particular standpoint of foot-candle illumination for the results of their researches at the Laboratory. I congratulate you, as he is a good man, and they are doing a lot of fine work, that will clear up a lot of obscure points.

E. J. WALL.

I want to tell you how very much I am enjoying the Anniversary Number of your magazine! It is filled with a wonderful lot of interesting information from "Kiver to kiver," besides a lot of instructive matter that is very valuable. You are deserving of a world of praise for undertaking its production.

What a vast improvement there is in the portraits of 1868 and the one by Jack Garo of the lady! Amongst some old things that I have I find the same old fussy furniture, which, I am glad to say, has gone with the rest of the *stiffables!*

E. J. DAVIDSON.

Permit me to be among the first to congratulate you upon your fiftieth anniversary number.

The issue is a credit to class and trade journalism and to the photographic profession.

CARL E. ACKERMAN.
The Photographic News.

I have been examining your 50th Anniversary number, with genuine admiration. You have accomplished a notable achievement in getting together, in this Anniversary and holiday number, so much photographic material of the highest value and greatest practical assistance to the professional and working photographer. The illustrations are particularly attractive and well reproduced;

BY STRAUSS-PEYTON STUDIOS

KANSAS CITY, MO.

and your colored frontispiece is an important contribution to pictorial photography.

I am particularly pleased to see that the photographic manufacturers and dealers are appreciating the good work which you have put forth in the interest of photography since assuming editorial management of WILSON'S; for your advertising pages are generously filled.

Wishing you the success you so fully deserve, I am,

W. I. LINCOLN ADAMS,
The Photographic Times.

I am just in receipt of the Fiftieth Anniversary number of WILSON'S PHOTOGRAPHIC MAGAZINE, and trust you will accept my compliments on its excellent lay-out, beautiful illustrations and practical, up-to-the-minute articles on photography in general.

At this time, permit me to again compliment you on the many improvements in WILSON'S since you became actively identified with it, and I note with pleasure that this has been appreciated, and that your subscription list has shown a remarkable increase within a short period of time. I hope that you will continue the good work, not only throughout the year 1914, but many others to come, and while your efforts and magazine may not be appreciated at the present time as much as it should, I know that the fraternity composed of both amateurs and professionals will soon learn of the good work you are doing and show their appreciation by becoming subscribers. H. O. BODINE.

For the Wollensak Optical Co.

Mr. Edward L. Wilson witnessed the wedding of Photography to Engraving, there has been a big family born to that union, but the youngest and fairest daughter is "Rotary Photogravure." which beautified, as a frontispiece, your golden jubilee number.

It was evident to every one, fortunate enough to possess a copy of that number, that Photography and Engraving are so happily joined that there will be no divorce.

That they, together with WILSON'S, may live long and prosper, is the wish of

S. H. HORGAN,
Editor "Process Engraving," Inland Printer.

The December number of WILSON'S is really grand, filled with just the right information for the professional photographer. To make it better than the present number would be next to a miracle. ALFRED J. JARMAN.

May I say that the number is not only a beautiful thing artistically and an extremely interesting one from a historical standpoint, but that it at the same time offers a fair sample of the practical efficiency of the new WILSON'S? Frankly, I think that you have set a mark for the other fellows to shoot at, and one which they will waste considerable powder without reaching.

A. E. SWOYER.

Thank you for your Anniversary issue of WILSON'S PHOTOGRAPHIC MAGAZINE. It is a very interesting number. ALFRED STIEGLITZ.

Have received the December number of the Magazine and, having time after the rush to dig into same, want to add my word of appreciation to the others you have probably received. If a mere photographer will take a compliment on a well-made portrait from a pleased patron, should not the Editor of his favorite Magazine be entitled to have his readers hand him the same. Some to keep for himself and dessert for his helpers. WILSON'S is many laps in the lead, the finish is evident.

With best wishes to your further success, I am, JOHN A. SCHREURS.

Your anniversary number has come, and, of course, there is nothing which can be said of it except words of praise. It is an unusual contribution to photographic journalism, both in its beauty and in the interest of its text. If you can keep up this sort of a pace, there is no

doubt that you will find that you have a tremendous field, both among advertisers and readers all ready to your hand.

C. H. CLAUDY.

Accept my congratulations on WILSON'S for December. You have certainly overdone yourself and gotten out the best issue of WILSON'S that it has ever been my pleasure to see.

Keep up the good work, and with best wishes for success,

FRANK V. CHAMBERS.
Editor, Bulletin of Photography.

I have noted carefully the high quality of the work embraced in this publication, especially the reproduction of up-to-date photographs and the colored work, particularly the frontispiece plate. I do not think I have ever seen any work ot this character superior to your present production. I also note that you have had substantial aid and appreciation from the trade in your advertising columns.

I congratulate you upon the very fine appearance of this issue.

GEORGE W. HATCH,
Editor, The Insurance Age.

Congratulate you on getting out a most superb number on your 50th anniversary. Wishing you abundant success.

A. B. STEBBINS.

I beg to thank you for your kindness in forwarding me a copy of your magazine. Quite the best I have seen.

J. HENRY PERKINS.
Honorary Secretary,
South London Art Gallery.

It is not too much to say that under the present editorship of Mr. Thomas Coke Watkins, WILSON'S has taken on a new lease of life and promises to occupy a place in the forefront of photographic publications for many years to come.

BRITISH JOURNAL OF PHOTOGRAPHY.

Worth Remembering. Tacked up in a prominent place in one of the largest local wholesale concerns are the following suggestions to clerks. They are pointed and worth following, therefore we reproduce them:

Find the easy, the quick and safe way to do things. By this method you can learn to accomplish 10 per cent. or even 25 per cent. more results by the same expenditure of strength.

Let nothing go over for to-morrow that ought to be disposed of to-day. Let no customer, or possible customer, who expects to hear from us in the morning, or by the next mail, be disappointed.

Over the telephone be especially polite, so as to bring yourself in contrast with many telephone operators, office boys, and others who seem to insult you because they are at a safe distance.

When not engaged, keep your eye on the front door. That is the place at which customers enter, and customers are always pleased with prompt attention.

Be tactful. Throw your whole intellectual energy into the study of the art of managing people, and exercise every atom of your common sense in putting what you learn into practice.

Post yourself upon the stock. Have qualities and prices at the tip of your tongue. We like to buy of a man who appears to know all about what he is selling. And then, too, how can you sell to profit if you be ignorant of your wares?

Make just as many customers *your own* as you can without injustice to your employer or your fellow salesmen. To have a man or woman who enters the store ask for you has a definite cash value as well as a bearing upon your future promotion.

Study your customers. To be acquainted with their tastes, their financial ability, and their dispositions, is to be able to get the largest orders compatible with the interests of your employer.

THE WOMEN'S FEDERATION OF THE PHOTOGRAPHERS ASSOCIATION OF AMERICA

Founder and Honorary President
Mary Carnell,
3731 Spruce St.,
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Section II
Bayard Wootten,
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Section III
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Section IV
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WHY THE FEDERATION SHOULD HAVE THE EARNEST SUPPORT OF ALL WOMEN PHOTOGRAPHERS

BY BAYARD WOOTTEN

THIS is a rapidly moving age in which we are living, we hardly adjust ourselves to one set of conditions before another environment surrounds us; and especially is this true of the professional woman photographer. I doubt, if, twenty years ago, a woman photographer nursed any ambition that would lead her to wish for recognition beyond the bounds of her own community. To-day it is different. Woman has achieved a success in the photographic world, and she has not only come to stay, but each year she is claiming for her own larger and larger fields. Having climbed to the eminence of a capable workman, a greater ambition lies between her and the horizon, as much of it to become a realization as she is capable of grasping. Having struggled to this height the wise woman will pause and take counsel with herself. If she will look around she will see that in all the professions the people who have really succeeded, with very few exceptions, are those who have organized with other members of their profession, and have associated themselves with the very best thinkers of the time, and women photographers are no exception to this rule. After becoming a capable workman, if she would grasp more of the rich heritage that lies beyond her, her wisest step is to get in touch with other women who have been over the same path, and to join the Woman's Federation of the P. A. of A. Here she will find a band of earnest, able workers, cordial in their welcome and most generous in their help. This organization is but a few years old, and has advanced with prodigious strides. It used to be when one went to a National Convention, they saw a few women dotted around in the audience, but as the years went by these women became more numerous, and more earnest in their attention and after a while a rather uncomfortable element in the conventions, for they felt that more recognition should have been

accorded them and their work than they received, and so they became restless and ill at ease. Women photographers are not the only ones who are having to adjust themselves to new conditions. The men have also had their problems to solve. They did not know what to do with this new element that had sprung up among them, until the women organized the Federation. Very cordially they welcomed it, and most generously have set aside funds to defray its expenses, and that, too, when funds were none too abundant. The Federation has put the women in a position where they have every opportunity to make good. "It is up to them." And they are making good in a way that their most enthusiastic advocates did not anticipate. They are an organization within the National Association complete within themselves, and every opportunity to grasp the territory they used to view from their little hillock is theirs. Being a member of the Woman's Federation places in the hands of every woman the opportunty of being just as important a factor in the photographic world as she has ability to justify. Being a woman no longer bars her from attaining anything. Only the women who have felt that they have been barred from things on account of sex can feel the joy of all this. What the Federation has accomplished for women photographers can be seen on all sides. Turn to the Report of the National Association for 1913. See what a large proportion of the pictures published there have a woman's signature. This was not the case in the days when there was no Federation. If the women of the land could realize the marvelous work that the Federation has already done in placing woman's work before the public on its merits alone, there would not be a woman photographer in this broad land who would forego the privilege of membership.

REPORT OF THE WOMEN'S FEDERATION EXECUTIVE BOARD AT ATLANTA, GA., JANUARY 12TH TO 17TH, 1914

AT the call of the President, Miss Pearl Grace Loehr, New York, N. Y., we met with the Executive Board of The Photographers' Association of America on Jan. 14th at the Hotel Ansley, Atlanta, Ga., to make plans for the joint work of The Women's Federation and the National board at the Convention there in 1914.

Miss Pearl Grace Loehr, President, and Sara F. T. Price, Secretary-Treasurer, and Mrs. Bayard Wootten, Chairman of The Southern Section of Women Photographers presented their several plans to the Board, and were well pleased with the hearty reception these plans received.

It is the intention of the President, Miss Loehr, to form committees among the Women's Federation to carry on our work in the most satisfactory manner.

Our Plans

On Jan. 1st, 1914, letters were sent out by the President, Miss Loehr, to 1,000 women photographers on the list of The Women's Federation, giving plans for the Circle work and asking that 3 prints be sent to Miss Clara Louise Hagins, Vice-President, Chicago, Ill., and dues to the Secretary-Treasurer, Sara F. T. Price, Mt. Airy, Phila., Pa. Letters were likewise sent out by the chairmen of the several sections and Miss Hagins First Vice-President.

It is the purpose of the Women's Federation to carry on a publicity campaign in the various newspapers of the country bringing into prominence all women workers who are members of the Federation, especially where such publicity will do her the most good, viz., her home paper. These stories will be accompanied by pictures, the work of the women. Miss Blanche Reineke, Kansas City, Mo. is the press representative.

In order to interest the people of Atlanta, Ga, in the coming Convention we have arranged to have an exhibition of pictures at the Carnegie Library of Atlanta, some time before the Convention. The women of Atlanta will be reached through the Federation of Women's Clubs, the colleges and the high schools. The Federation have taken upon themselves the entertainment of the women visiting. A special committee will be appointed by the president. Arrangements have been made to serve lunch in the Auditorium each day at certain hours, and cold refreshments at all hours during the sessions at reasonable prices.

The Auditorium of Atlanta presented to The Photographic Association of America, is wonderfully adapted to the needs of the Convention.

The rules applied to the exhibition of prints will be applied to the Federation as well as The Photographers Association of America. All prints for this exhibit must be received at the Auditorium, Atlanta, Ga., not later than June 9th 1914. Pictures received after that date will be returned to the sender unopened.

The Women's Federation will be represented on the program in the Educational Photographic School for the practical upbuilding of portraits along artistic lines.

Respectfully submitted,

SARA F. T. PRICE, *Secy.-Treas.*

TRANSLATIONS AND ABSTRACTS

BY E. J. WALL, F.R.P.S.

Instantaneous Radiography

Dessauer (see p. 484) has just published a method by means of which it is possible to obtain sharp X-ray pictures in from 1-100th to 1-500th of a second. The ordinary induction coil and tube are used, but the interrupter is done away with, and replaced by a short wire of silver or copper, which is carefully calibrated to fuse at three amperes. Each wire is enclosed in a small carton, though there is little danger of any explosion, and the wires are supplied of different strengths for different thicknesses of subject. By this system the tube is only traversed by a single impulse or current, which is very brief and very intense; in the ordinary way the normal discharge is from 1 to 10 milliamperes, but in the new method it is from 250 to 400. It has been found that this method is without any deleterious effect on the coil or tube, and in fact the latter is less readily fatigued than by the old process, since the passage of the current is so short that the anticathode is but slightly raised in temperature. The only alteration required is in the wires carrying the current, these are usually for 40 amperes, but for the new method they must be capable of carrying at least 60 to 100 amperes. Excellent results of the thorax, heart, stomach and intestines have been obtained in 1-500 of a second.—*Phot. Revue,* 1913, p. 137.

Photographs on Watch Glasses

An anonymous writer recommends making a positive on a transparency plate and immersing for 5 to 10 minutes in dilute hydrofluoric acid, washing, drying and cutting round the edges of the film, about 2 mm. from the edge of the glass, stripping the film and cutting out the portion of the picture it is desired to transfer to the glass. Ordinary cycle tire cement should be diluted with 5 times its volume of benzole and about two drops allowed to fall on to the centre of the watch glass, and allowed to spread all over, then allow to stand till nearly all the benzole has evaporated and then press the positive picture into contact with the finger tip.—*Phot. Revue,* 1913, p. 64.

The Preservation of Hydroquinone Solutions.

Pinnow has carried out a research as to the first product of the oxidation of hydroquinone in the presence of sulphite and proves that it is hydroquinone-monosulphonate of soda $C_6H_5SO_5Na$. In the course of his experiments he discovered that the addition of 3 ccs. of glacial acetic acid to every litre of hydroquinone-sulphite solution (= 21 minims to 16 fld. ozs.) will preserve it four times as long as the plain solution.—*Zeit. f. wiss. Phot.,* 1913, Bd. XII, p. 41.

The formation of hydroquinone or quinonemonosulphonic acids as oxidation products was first pointed out by Andresen (1898) and Bogisch (1900).

Blue Print Paper.

Practicus gives the following working formula for preparing ferro-prussiate paper. The readiest method of sizing is:

Arrowroot	18 g.	180 grs.
Glucose	4 g.	40 grs.
Water	1000 ccs.	20 ozs.

Mix the glucose and arrowroot to a paste with a little water and add the remainder hot, boil with constant stirring and remove the skin when cold. Pin the sheets of paper to a board about half an inch smaller each way than the paper. Apply the size with a small sponge, first lengthways and then across. Go over this coating very lightly with a second sponge and finally even up with a third sponge. A gelatine sizing can be made as follows:

Hard gelatine	10 g.	150 grains
Water	1000 ccs.	30 ozs.
Alum	1.5 g.	45
Denatured alcohol	233 ccs.	7 ozs.

Dissolve the gelatine in the water by the aid of heat, add the alum dissolved in a little water and lastly the alcohol. Immerse the paper for two or three minutes, hang up to dry and then immerse again and hang up by opposite corner. The sensitizer is:

A

Ferric ammonium citrate	220 g.	110 grains
Distilled water	1000 ccs.	1 oz

B.

Potass ferricyanide	80 g.	40 grains
Distilled water	1000 ccs.	1 oz.

The above formula is for the green salt, if the red is used the quantities should be 160 g. or 80 grains of the citrate and 120 g. or 60 grains of the ferricyanide. The solution should be applied with a sponge. The green salt gives the more sensitive paper.—*B. J.,* 1913, p. 837.

Whether the red or green salt be used, it is extremely important that it should not have been kept for a long time previous to use in the light as reduction takes place. The ferricyanide should also be rinsed in distilled water before solution, otherwise muddy whites may be obtained.

A New Sulphide Toner

Fenske has just taken out a patent for a new sulphide toner composed of:

Liver of sulphur.....	13.6 g.	95 grains
Water	750 ccs.	12 ozs.

dissolve and add:

Hypo sat. sol.....	50 ccs.	350 minims
Water to	1000 ccs.	16 fld. ozs.

The solution should be filtered before use.

The prints should be fixed as usual and then transferred at once to the above solution, toning being complete in about 15 minutes for a warm sepia.—*Phot. Journ.*, 1913, p. 14.

Mr. Milton B. Punnett suggested some years ago the use of a solvent for the silver image, a sulphocyanide in conjunction with sodium sulphide, and although I am unable to find the original communication I believe this was applied after a bleaching bath. Thiocarbamid, thiosinamin might also be used for the same purpose except for their cost.

Color Fog or Yellow Stains on Development Prints.

In a recent article on the above Luppo-Cramer of the Schleussner Dry Plate Factory stated that the chief cause of this trouble is the contamination of the developer with hypo and he suggested the omission of hydroquinone from the developer also. H. W. H. states that hypo cannot be the cause because he found the addition of 40 minims of acid fixing bath to every 16 ounces of metol-hydro developer to be an absolute preventive of these stains both on plate and paper and that better tones are obtained on bromide papers with this addition.—*B. J.*, 1913, p. 906.

The seeming contradiction here is readily explained. Local contamination of the developer inevitably causes the well known stain, but if hypo be added to the developer before use it is equally and evenly distributed throughout the same and does no harm. When metol was first introduced the addition of a few drops of 10% solution of hypo was recommended as a restrainer. With ortol, which is one molecule of hydroquinone to two molecules of metol, hypo keeps the negatives freer from fog. The addition of hypo also helps to prevent abrasion markings.

Increasing the Sensitiveness of Plates.

Luppo-Cramer states that if a plate be bathed in a 1:1000 solution of potassium iodide for one minute and then washed and dried it gains "enormously" in sensitiveness. He also states that he has found that silver iodide is more sensitive than bromide.—*Phot. Korr.*, 1913, pp. 460-503.

These results must be accepted with reserve. Luppo-Cramer does not state that he bathed his control or comparison plate in water and dried it, and it is quite probable that the mere fact of washing a plate in water and then drying presumably at the normal temperature of a plate drying room, would result in an equal "enormous" increase in speed. That increase of iodide up to a certain point in an emulsion gives greater sensitiveness has long been known, but that such a weak solution as the above acting for such a short time will have the same effect is open to question.

The Reproduction of Autochromes

Cousin recently described his method of reproducing autochromes as follows: He used 22 incandescent lamps designed for 80 volts, but which when overdriven to 110 volts gave 176 candle power for the illumination of the subject, and gave an exposure of 60 seconds at F. 5.6 without a compensating filter, and the plates developed rinsed and fixed but not converted into a positive, the result being, of course, a negative, in complementary colors, which was characterized by a dominating tint or preponderance of one color. This negative was then copied in the camera, using six of the same lamps behind a ground glass diffusing screen, without the compensating filter and the plate was developed and converted into a positive in the usual way, the result being that the preponderance of color in the negative gave rise to the preponderance of the complementary color on the positive. The results are stated to have been extremely satisfactory and with pure whites and greys.—*Bull., Soc. Franc.*, 1913, p. 330.

Cracked Condensers.

Dr. Klughardt, of Rathenow, describes his experiments with condensers made of Jena Pyrodurit glass. Cubes of ordinary condenser glass and Pyrodurit of 13 millimetres, were heated to various temperatures, ranging from 140 to 400 deg. Fahr. and then suddenly cooled down by immersion in water at from 58 to 68 deg. The ordinary glass only withstood changes of 212, while the Jena glass withstood a drop of temperature of 330 degrees.—*Eder's Jahrbuch*, 1913, p. 94.

Pyrodurit glass has the following approximate composition:—silicic acid, 66; boric acid, 24; oxide of antimony, 4; soda, 6; while the ordinary glass has silicic acid, 72; lime, 10; soda, 8.

Finding the Focus of a Condenser.

F. P. Liesegang gives the following method for finding the focus of a condenser of a kinematograph projector. In the gate, that is in the aperture where the picture lies, should

be placed an opaque metal plate, in which is an aperture the exact size of the picture and instead of the objective should be inserted a metal plate or card with a narrow slit, about 1.100 of an inch wide. The crater of the arc is now projected sharply on to the slit and the image of the slit focussed sharply on the screen; when this is effected care should also be taken that the image of the crater is also sharp on the slit, which can be effected by altering the distance between condenser and slit, then the distance from the gate or card to the slit is the focus of the condenser.—*Eder's Jahrbuch*, 1913, p. 51.

The Bleach-out Process.

Worel, who has paid considerable attention to this subject, states that resin soap (resin dissolved in soda) used for sizing paper, is an energetic sensitizer. Methylene blue and toluidine blue bleach-out, when mixed with it, in 30 seconds, primrose in 45, erythrosin in 60, pyronin in 120 seconds, methyl water blue in 3 minutes, Victoria blue and yellow I (Hoechst) in 5 minutes. It is not a sensitizer for marine, indophenol and benzo pure blues, pinacyanin, spirit and anilin blues, quinolin and chrysoidin yellows, yelow II, auramin corcurim, and thioflabin. The bleached product of methylene and toluidine blues are oxidized in the presence of the air and regain their original color in about 5 minutes.—*Eder's Jahrbuch*, 1913, p. 90.

Ihran states that sodium sulphite is a sensitiser, but it exerts a different action with different dyes. Methylene and toluidine blues in the presence of sulphite and an organic substance, such as paper, thiosinamin, or anethol rapidly bleach in the light, whether the solution is acid or alkaline; eosin, erythrosin, rose bengal and fluorescine only bleach in neutral or alkaline solution. The mixture of eosin, sulphite and thiosinamin only bleaches with the exclusion of air. To obtain a print, paper should be immersed in a 1.500 alcoholic solution of the dye, dried and immersed in a mixture of

Sodium sulphite 2% sol. ..... 3 parts;
Thiosmamin 2% sol. ..... 1 part,

then squeegeed while wet to a transparency, that has been previously coated with celluloid varnish, and exposed in a printing frame with a sheet of glass behind it. A good image is obtained in about two minutes. Allyl alcohol and cinnamic acid are also good sensitisers. Ihran comes to the conclusion that the vigorous sensitising action is probably a characteristic of all unsaturated carbon compounds.—*Phot., Korr.*, 1913, p. 539.

A Simplification of Pinatype.

Koenig publishes a considerable simplification of this process, which was actually discovered by Gleichmar. Thin celluloid coated with gelatine is sensitised with bichromate, dried and exposed under the three-color negatives, with the celluloid in contact with the negative film, then developed with warm water and stained up with the pinatype dyes and the results used as printing plates for the transfer of the dye to gelatinised paper.—*Phot., Rund.*, 1913, p. 325.

This improvement does away with the intermediate transparencies. The principle is analagous to the Sanger-Shepherd process, and the novelty lies in the use of the pinatype dyes to stain the hardened gelatine, while in the original process they only stained the unhardened.

Making Realgar.

Chapman Jones states that the best proportions for making this are arsenic 7 and sulphur 22½, and he laid great stress upon the use of absolutely pure sulphur. He showed some that he had made which was in clear amber beads that melted to a bright, lemon yellow fluid.—*B. J.*, 1913, p. 981.

This is not of much interest except to those who practice microscopy. As the formula for realgar is $As_2 S_2$, it is obvious that 7 parts of arsenic would require about 3 of sulphur, so that one might imagine that we had here a solution of sulphur in realgar or else mixtures of some of the higher sulphides.

Collodio-chloride Emulsion.

While few will probably care to undertake the making of this the following formula has been given by Cobenzl:—

Matt Paper.

Collodion 4%	100 ccs.	16 fld. ozs.
Lithium chloride 10% sol.	1.25 ccs.	87 minims
mix and add		
Silver nitrate	2 g.	140 grains
Distilled water	2.6 ccs.	182 minims
Alcohol	8.0 ccs.	560 minims

Dissolve the silver in the water by the aid of heat, add alchohol, then mix very slowly with the collodion and add

Citric acid 10% sol. ..	6.80 ccs.	476 minims
Alcohol-ether 2:1	12.0 ccs.	840 minims
shake well and add		
Ammonia 10% sol. ..	1.50 ccs.	85 minims
Glycerine 10%	10.00 ccs.	700 minims

Glossy Paper.

Collodion 4%	100 ccs.	16 fld. ozs.
Lithium chloride 10%..	4.05 ccs.	284 minims
Silver nitrate	2.70 g.	189 grains
Distilled water	3.0 ccs.	210 minims
Alcohol	10.0 ccs.	700 minims
Citric acid 10%	4.90 ccs.	343 minims
Alcohol-ether 2:1	5.00 ccs.	350 minims
Ammonia 10%	1.08 ccs.	76 minims
Glycerine 10%	10.0 ccs.	700 minims

The glossy emulsion is mixed in the same way as the matt. The chloride should be dissolved in alcohol, the citric acid in a mixture of alcohol and ether, and the glycerine and ammonia in alcohol.—*Phot., Ind.*, 1913, p. 1809.

EDITOR'S TABLE

An Opportunity.

In the conduct of all commercial business there are certain seasons of the year that offer peculiar advantages for the sale of merchandise and commodities. At other seasons it seems scarcely possible to effect any increase in the output of a business, no matter what expedients are employed for that purpose. The dry-goods merchants, for instance, put forth their greatest efforts in publicity at such times as to meet the natural demands of the season, close at hand. Business men in other lines follow the same general custom, and the result is that the publicity of a business is trimmed to meet the immediate contingencies looked for in each particular line of trade represented.

In some ways photography resembles the business of the general merchant, inasmuch as there are two or three seasons of the year during which a greater volume of business is expected than in the remaining months. If this is so, and the same rule holds good in both cases, the present opportunity should be embraced by every progressive studio in the country and a definite effort made to stimulate the natural business of the spring-time and the Easter season.

There are many ways by which this work can be executed in the studio itself, and most effective advertising matter produced for the Easter season. In studios where a limited amount of advertising matter is necessary to cover the desired field, very dainty child pictures can be produced in platinum, carbon, or other papers, tastefully mounted upon small folder covers and mailed with either a personal letter or neatly printed announcement, or the print may be mounted as part of a folder design containing a limited amount of type-printed matter telling the story of the studio. The natural connection between the Easter season and the spring-time of child life, offers an exceptional opportunity for these dainty announcements and a few hundred or a thousand issued to a carefully selected list is almost always productive of profitable returns. These announcements should unquestionably depend for their attractiveness upon the illustration or illustrations contained in them, and the illustrations should be made up wholly of exquisite child portraiture and for which either single portraits or groups may be used. The field for such illustrations is limitless and almost every studio can turn to subjects well suited for the purpose. Let the illustration however, be the main and principal attraction and let the announcement be subsidiary to it—just enough text to connect the illustration with the season and logically lead to the importance and necessity of portraits of the children in the home to which the announcement is sent.

In studios where a larger number of announcements is required than can readily be printed from the negative direct it will be found wise to have half-tone plates made for the purpose. These should be carefully prepared and above all should be printed upon paper of fine texture suited to the proper reproduction of half-tone work. Many studios make the error of having their illustrations printed on paper wholly unfit for fine half-tone blocks with the result that the advertisement when it appears is more apt to damage any good impression that may have existed in the minds of the readers concerning the studio work, than to advance it.

A single, dainty child portrait, printed upon a small panel, mounted in a folder, and accompanied by a few lines of well-chosen announcement makes an exceedingly attractive Easter advertisement and

one that can be produced at comparatively small cost. Such an announcement going into the well-to-do family where children are growing up cannot fail to produce a favorable impression toward the studio issuing it. That favorable impression while it may not result in an immediate order does do good work. It influences any future announcements that may go out, it goes far toward backing up a previously-formed good impression of the studio and makes easier the work of the photographer in finally bringing to his door the customers whom he seeks in this way.

No single piece of advertising matter can be expected to produce any striking or remarkable returns. The whole value of advertising in itself depends upon its cumulative power. The results come not from the issuance of a single publication, but from the persistent effort of the advertiser, who should avail himself of every reasonable opportunity presented by the seasons, by local conditions or by any special inducement that he may from time to time see fit to make. That the Easter season is one of the best for this purpose in the field of photography can hardly be disputed. That the men who have issued Easter advertising in the past have profited by it, is evidenced by the fact that they are repeating the operation. This, of itself, is an indication that those who have not done so may profit by the experiment. There are many ways in which the studio can do for itself; but the prime essential of all such advertising should be extreme neatness, daintiness, exquisite taste, and a high quality of production that will raise the studio in the minds of its recipients.

PHOTOGRAPHY IN GREAT BRITAIN

A Review of the Month from our own Correspondent

London, Jan. 2, 1914.

PHOTOGRAPHIC London is slowly recovering at the time of writing from the animation and excitement of the Christmas season. As in other countries, it is with the professional worker the busiest time of the year, while the increasing number of amateurs who employ their photographic knowledge for the production of seasonable souvenirs to circulate amongst their friends makes the few days around the 25th of relative importance amongst the Societies.

Some short time ago a leading daily newspaper declared that the conventional photographic Christmas Card was doomed and would be sparsely represented last year. However, the best commentary upon this inference is the continued popularity of the time-honored photographic greeting in a variety of different forms. So far as novel variations of Christmas Cards bearing a photograph of the sender have gone they have been strikingly original, if few. A well-known metropolitan wholesale house conceived the idea of making jig-saw portraits on a commercial scale. They secured the services of about a score of professional photographers to act in the capacity of agents and their part of the contract was to take orders upon which they drew a commission. The finished jig-saw was in the form of a cabinet-size portrait dissected in a guillotine into a hundred pieces of irregular shape and the puzzle of the receiver was to fit the pieces properly together until the picture was completed. The pieces were sent out in small fabric bags, bearing a printed greeting and the name of the sender and were retailed at a guinea a dozen. Another idea that has caught on immensely with the populace may appeal to the professional photographer in a more modest way of business, inasmuch as it requires no costly apparatus to produce. This is the photographic image printed upon note paper. Ordinary note paper with the first page sensitized has to be procured and from a negative of the sitter made in the studio in the ordinary course is printed lightly a photographic image. This must only be faintly developed and fixed and dried, the ultimate effect being a watermarked portrait in the note paper. These retail as low as ten shillings per dozen sheets of paper with envelopes. Still another alternative—this rather of limited appeal—which has found favor amongst a few photographers is the portrait cigarette paper and cigar band. A narrow band of very thin sensitive paper worked up to resemble a cigarette paper and bearing a photograph of the purchaser was priced at from two to three guineas per book of 100 papers, while the same idea extended to cigar bands was sold at a similar price. Luggage labels, visiting cards, and other trifles of everyday use, bearing photographs on the reverse side, have also provided at the Christmas season many other profitable side lines for the British photographer.

The Manchester Exhibition.

Next to the Northern Photographic Exhibition held alternately at Manchester and Liverpool, the annual exhibition of the Manchester Photographic Society may be ranked as next in order of priority. I spent two

days in Manchester last week at the exhibition and was pleased to note a perceptible toning-up in the excellence of the work in both pictorial and scientific sections, but particularly in the latter. A series of reproductions of oil and water-color paintings by members pointed out the moral that a panchromatic plate and color screen are essential, if faithful reproduction is the objective. The printing by various processes of photogravure plates on a scale suitable for the amateur was demonstrated at great length and equally enlightening, if of smaller pretensions, were the photo micrograph and colorplate sections.

Another interesting exhibition that has been visiting the capital of the northern counties was the collection of photographs of Mr. H. Pouting, the official photographer of the ill-fated Scott expedition to the Antarctic. Mr. Pouting's photographs attracted enormous crowds of people, and no doubt the many amateurs and professional workers who visited the display gleaned valuable hints in the accurate rendering of expanses of snow without unpleasant contrast. It is quite plain to see from the prints exhibited that Mr. Pouting has specialized in snowscapes and with most successful results and when he visits the United States to exhibit his efforts I would urgently advise every photographer who possibly can to see them.

Perpetuating Ancient Dress.

A responsible and exacting task to set any photographer has been meted out to Mr. Bertram Park, the honorary secretary of the London Salon of Photography. One of London's largest stores recently purchased a valuable private collection of antique costumes, representing English national dress from the end of the seventeeth century to the middle of the last century. Mr. Park was asked, with the assistance of suitable models, to make an individual camera study of each and to arrange the whole as a permanent collection for the guidance of future costumiers. Mr. Park has now, I am informed, nearly completed his task and the entire collection will be publicly exhibited at one of the London galleries during the next few weeks.

A New Plate and Paper.

Messrs. Marions, the Soho manufacturers, announce that they will shortly market a new plate of unusual sensitiveness for rapid winter work. The new plate will be known as the "Record" with a speed of 500 H. and D. The principal claim for the "Record" is complete freedom from chemical fog. Simultaneous with this announcement comes a new developing-out paper that will probably be known as "Yto Paper." Demonstrating this at a recent meeting of the Royal Photographic Society (technical section), Mr. R. Gregson produced by simple development, prints with a wide range of tones, the exposure only being varied.

The Fight for Cheaper Plates.

It appears that definite stand is to be taken by a group of amateur photographers in South London against the recent action of British dry-plate manufacturers in increasing their prices 25 per cent. It is not expected that the campaign will spread, but the plan which it is proposed to adopt consists of persuading some photographic manufacturing firm to supply to a list of accredited dealers plates at the old prices. Those interested in the movement will purchase their plates exclusively from these dealers, who, backed up by their support, will be able to retail out the plates without fear of boycott. The difficulty with this scheme, appears to be the compilation of a list of photographic dealers who will defy the so-called "plate combine." What would happen to any dealer starting this on his own instigation is apparent. It is also quite obvious what would happen to any photographic journal in this country supporting the scheme. As an alternative a co-operative plate factory to supply plates and papers at wholesale rates to photographic societies has been mooted, but this would require a large capital to commence, and is, therefore, for the present, at any rate, likely to remain in the background.

Detection by Photography.

Mr. A. P. Laurie, Professor of Chemistry at the Royol Academy, gave a lecture in London a short time ago on the value of micro-photography in the indentification of paintings. Shown on the screen were lantern slides of a picture by Watteau and of a good copy by a modern artist. Viewed in the ordinary way it was impossible to distinguish one from the other, but when micro-photographs of a head in the original and of its copy were exhibited a striking difference was soon noticeable.

Rubber Gloves.

It is quite safe to assume that one of the worst impediments to a photographer is when he is compelled to wear rubber gloves over his hands to do his developing or fixing. Often this is necessary, particularly, if the worker is acutely susceptible to metol poisoning or has a slight abrasion on the hand. What is given as a safer, easier, and more suitable protection for the hands than rubber gloves is contained in the experience of Mr. A. Bruning. He advises smearing over the hands thoroughly with alcohol, drying them, and then rubbing them over carefully with petrolatum medicated with boric acid. At the termination of operations the whole may be washed off in hot water.

A New Bromoil Bleacher.

Demonstrating the Bromoil process at a recent meeting of the London and Provincial Photographic Association, Mr. H. Featherstone gave the formula of a new bleaching solution which he claims makes the gelatine image take the ink more absorbently irrespective of atmospheric conditions. The solu-

tion, which can be used several times, is made as follows:—

Potass. bromide	40 grains
Copper sulphate	40 grains
Chrome alum.	8 grains
Sulphuric acid	3 minims
Potass. bichromate	3 grains
Water	10 ozs.

The bromide print is immersed in the above solution at 90 degrees F. for five minutes, then washed and fixed in the ordinary course. After another thorough washing the print will be noticed to go through the image in faint relief. It is then ready for the pigment.

Photo-Telegraphy.

Signor Umberto Ellero, of Rome, is seeking to patent in this country apparata for the telegraphic transmission of photographs. The image is first decomposed into small squares and to each is assigned by type symbols its corresponding degree of shade. Each symbol comprises a black or white square dot of varying size placed at the center of a square element corresponding to those of the decomposed image. At the other end of the wire the transmitted image is typographically built up from the fundamental symbols.

A direct-vision view finder, which shows an erect image that may be viewed at great obliquity, has been invented by Messrs. C. & H. C. Beek, the well-known lens-makers of London, and will no doubt be placed upon the market by them or their agents.

A Carbon Wrinkle.

Carbon is one of the most popular winter processes amongst amateurs on this side. Probably few American amateurs may be familiar with what is known as the "stand" method. Carbon prints developed in cold water possess superior gradations to those developed in hot water, but the great disadvantage to the use of cold water as a developer, is the length of time it requires to develop out the carbon image. This can be obviated by fastening the backs of carbon prints to a sheet of glass by means of rubber bands and immersing the whole in a large tank or bucket of cold water. After an immersion of about half an hour they should be completely developed.

This Year's P. P. A. Congress.

The fifth annual congress promoted by the British Professional Photographer's Association, is announced this week to be held in London at the same time and place as the Photographic Arts and Crafts Exhibition, from May 11th to 15th. A new departure of the Congress will be the open classes for prints for all professional photographers in the United Kingdom. J. B. SUTCLIFFE.

REPORTS OF SOCIETIES

REPORT OF THE EXECUTIVE COMMITTEE OF THE PHOTOGRAPHERS' ASSOCIATION OF AMERICA.

AT the call of President Manly W. Tyree, the Executive Board of the Photographers' Association of America, met in executive session at the Hotel Ansley, in Atlanta, Georgia, on January 12th, 1914. The following members of the Board were present:

Manly W. Tyree, of Raleigh, N. C., President; Will H. Towles, of Washington, D. C., First Vice-President; Homer T. Harden, of Wichita, Kansas, Second Vice-President, and L. A. Dozer, of Bucyrus, Ohio, Treasurer.

At the special request of the President, representatives of Manufacturers and Editors, were present. These men were called in special conference for the purpose of securing new ideas to be inaugurated in the next Convention, and for the purpose of having more perfect co-operation between the Association as a whole and the companies interested in photographic supplies and magazines.

The committee appointed to employ a general secretary was represented by Mr. George W. Harris, of Washington, D. C., Chairman; and Mr. Ben Larrimer, of Marion, Ind.

The committee of the Woman's Federation was represented by the President, Miss Pearl Grace Loehr, of New York City, and Mrs. Sarah T. F. Price, of Philadelphia, Pa., Secretary. The ladies of the Woman's Federation, were called by the President, to present plans to be followed out by the Woman's Federation in their work.

The first meeting was called Monday morning at 9 o'clock by President Tyree, and immediately thereafter Messrs. Towles and Hoffman were appointed on the auditing committtee to report on the books of the Treasurer and Secretary. The committee reported that the books and the vouchers were in order and recommended that the Board accept these books in full.

Official Emblem.—In order that a design may be made which shall be permanent from

year to year Messrs. Dozer and Hoffman were appointed on a special committee to secure designs for buttons with the idea that this design shall be used not only as a button, but as a permanent insignia, to be used on all membership cards, stationery, membership certificates, etc.

Various suggestions and matters pertaining to the conducting of the 1914 National Convention were formally discussed and resolutions adopted in the regular order.

Date of Convention.—After a discussion in conference with the manufacturers, editors and dealers, and after all of the many details which might enter into the success of the Convention were discussed, it was decided to hold the meeting from June 15th to June 20th, 1914.

This date seemed most appropriate for the greatest majority of people who would be able to attend the Convention.

Meeting Place.—The Executive Committee then went in a body together with all of the representatives present to inspect the Auditorium, offered by the City of Atlanta, for the purpose of holding this Convention. It was found that this Auditorium was especially adapted to hold the National Convention and was unanimously agreed upon that the Auditorium should be accepted with the hearty thanks of the Board.

The Association Record.—After considerable discussion it was decided to publish an Association Record as in former years, but that special effort would be made to have this record in the hands of the members of the Association in as short a time as possible after the Convention closed. While it was not possible to promise any date, it is the belief of the Board that the record will be in the hands of the members within 30 days after the Convention closed.

Picture Exhibit.—Some new features will be inaugurated in exhibiting the pictures submitted. Three pictures will be solicited from each exhibitor. All pictures submitted will be passed by a Jury of Three, one artist and two photographers, who are recognized for their ability. All pictures submitted will be hung. Those rating above 65% will be placed in the Accepted Class, all others will be placed in the Rejected Class. No names to appear on pictures submitted. The jury will be present to give private criticism upon request. Only accepted pictures will be catalogued. The Board has decided to purchase, not to exceed 20 of the best pictures exhibited, for which they will pay $25.00 each. These pictures are to form a nucleus of a permanent collection. All pictures for this exhibit must be received at the Auditorium, Atlanta, Georgia, not later than June 9, 1914. Pictures not received by that date will be returned unopened.

Note.—The rating that will be given pictures composing this exhibit, is the personal opinion of the Judges according to their understanding, and accepted accordingly, there being no recognized standard in Photography.

Program.—The program is designed to be strictly of an educatonal character. It is not the purpose of the Board to show impractical or extraordinary work, but to teach the members how to use their appliances with understanding, with profit to themselves, and with an eye to a higher standard of Photograph making. With this in view, photographers of National prominence will be engaged to show the manipulation of light and the handling of the customer. These character talks will be supplemented by a series of studio demonstrations, conducted entirely in daylight, which will be managed by one or two of the regular demonstrators of the various Plate Companies, namely, Seed, Cramer, Hammer and Central. Plates will be exposed at these demonstrations and within 30 minutes of the close of each demonstration, these plates will be shown developed on screens so that all can view them. Subsequently, these plates will be projected on to a screen by a means by the Bausch & Lomb Balopticon, an instrument which is designed to receive a full-sized negative in a horizontal position, which is then projected on to a screen like a lantern slide. These plates while being projected will be worked in with background, retouched, etched with a knife, when necessary; in short, all the latest ideas and methods of working up the negative will be fully carried out by expert retouchers in full view of the audience. After these negatives have been worked up, they will then be handed to the print demonstrators who will make prints from them on all various grades of paper. The Print Demonstration will be conducted by the various paper manufacturers, each in his own stall fully equipped to show all the latest ideas in printing and masking of the negative to get out the finest possible print. The rest of the program will consist of other educational features along business lines, full particulars of which will be made known through the various channels of publicity.

The Daily Paper.—It was agreed that a daily publication of some nature, would be of considerable interest, and, therefore, the Board decided to allow Messrs. Abel and Chambers to publish a daily paper during the days of the Convention, of which they will be given full charge. This paper shall be called the "P. A. of A. National Daily." It will contain a program of the days' proceedings with interesting news items gathered on the Convention floor.

Auto Chrome Exhibit.—On account of the interest of the profession at large, and the general public in Color Photography, the Board will have collected an exhibit of Auto Chrome, and other Color Processes.

Committees.

The President Appointed the Following Committees.—Stationery, Will H. Towles, Washington, D. C.; Buttons, L. A. Dozer,

Bucyrus, Ohio; Headquarters, Homer T. Harden, Wichita, Kansas; Entertainment and Press Notice, The entire Board; Information, Local committees appointed by the Atlanta Organization; Transportation, Homer T. Harden, Wichita, Kansas; Association Record, Manly W. Tyree, Raleigh, N. C.; Homer T. Harden, Wichita, Kansas; Legislation, R. W. Holsinger, Charlottesville, Va.; Membership, and Credentials, Walter Holliday, Durham, N. C.; Jos. Knaffl, Knoxville, Tennessee; Applied Ethics, Ben Larrimer, Marion, Indiana; Homer T. Harden, Wichita, Kansas; Miss Emma Gerhardt, St. Louis, Mo.

Progress of Photography.—L. G. Studebaker, Kansas City, Mo., J. L. Cusick, Louisville, Ky., O. W. Cole, Danville, Virginia.

Foreign Affairs.—Pirie MacDonald, New York City, Eduard Blum, Chicago, Illinois; D. P. Thompson, Kansas City, Mo.

Headquarters.—It was agreed to make the Hotel Ansley the Headquarters for the Convention and to accept the proposition made by Mr. Letton of Hotel Ansley in regard to holding the Officers' regular reception to the members on Monday evening.

Membership.—It is agreed to ask the manufacturers who have traveling salesmen to cooperate with the Executive Board in securing the larger membership for the Association. The Secretary is authorized to conduct this campaign, also to work out plans whereby the Association could be of service to the Photographers every week in the year. The Board agreed to recommend to Congress a change in the dues of the Association whereby those Photographers who are not able to attend the Convention, may belong to the Association, upon the payment of a certain amount of dues and that these members upon the payment of an additional sum will be given tickets of admission to the Convention. So far the amounts which shall be recommended are not determined.

Employment Bureau.—The Board decided to establish at once a National Employment Bureau, open to all Members of the Association without charge.

Temple of Childhood.—The Board took up the current issue, The Temple of Childhood, and from the data they were able to gather at this time, it is their unanimous opinion that the operation of The Temple of Childhood as it affects our profession, does not foster the fraternal spirit which the Association has been trying to establish among those interested in Photography.

Woman's Federation.—Miss Pearl Grace Loehr and Mrs. Sarah T. F. Price, presented the following report of their work up to date and their plans for future work.

Letters were sent out by the President, Miss Loehr, to the 1,000 women Photographers on the list of the Woman's Federation, on Jan. 1st. Letters were sent out by the Secretary of the Federation, to all members of the Circle, on Jan. 1st, giving the full plans for the Circle work and asking that Photographs be submitted. The publicity of the Federation was further carried on by the Treasurer and the Chairmen of the respective Sections.

It is the purpose of the Federation to carry on a schedule of publicity in the prominent newspapers in the United States, telling of the work of the Women Photographers of the country. These stories will be accompanied by suitable photographs made by Women Photographers.

Local Publicity.—In order to reach and interest the people of Atlanta in the Convention, the Members of the Woman's Federation have arranged to have Pictures on display in the Atlanta Public Library, several weeks before the Convention convenes. The women of Atlanta will be reached through the Federation of Women's Clubs, and the young people of High School and College age will be interested in special ways.

The women have taken upon themselves the entertainment of the visitors at the Convention. Arrangements have been made to serve lunch in the Auditorium from 11 to 2, each day, and cold refreshments at all hours of the days, at reasonable prices.

Booths.—The spaces sold to the manufacturers and dealers in Convention Hall, shall be provided with booths and decorations following a uniform plan at the expense of the Association.

A hearty vote of thanks is tendered by the Members of the Board to the Photographers and Dealers of Atlanta for their cordial reception during their stay in the City.

JOHN I. HOFFMAN, *Secretary.*

BEGINNING with 1914, the P. A. of A. is going to have for its motto, the single word "Service." As the new secretary of the Association I would like to make this idea stand out above all others. Service not alone at convention time, but for the other fifty-one weeks of the year. Service to each individual photographer and to photography as a profession.

It would be a little premature for us to say just now along what line our efforts will be spent. We must investigate and find out what can be accomplished which shall benefit the photographers from a business as well as from an artistic standpoint. Along this line let me say that suggestions from any photographer, whether a member of the Association or not, will be taken with the kindest consideration. May I ask that these suggestions, no matter how trivial they may seem, be sent to me at Bucyrus, Ohio.

That the Association is starting on a new epoch is the belief of every one in touch with the new spirit among the photographers. Tradesmen, business men, and professional men, are all organized for self-protection. The time has come for every photographer to unite with the organization which has for its sole aim the subserving of his interest.

We need a large organization, one which shall have some prestige, one which shall be able to protect the profession from foolish legislation, commercial discrimination and popular misconception.

We need the co-operation of every photographer to carry out this work. Can we count on you?

JOHN I. HOFFMAN,
Secretary.

CHANGE OF DATE OF BUFFALO CONVENTION TO FEBRUARY 25TH, 26TH, 27TH, 1914.—TO BE HELD AT THE IROQUOIS HOTEL.

THAT there may be no risk of disappointment, your executive committee has deemed it advisable to postpone the convention for two weeks in order to be sure of receiving the full complement of the pictures from foreign shores. This promises to be a feature of unusual interest and we should run no chance of their not all reaching us in time.

The exhibition will consist of pictures from Austria, England, France, Germany, Hungary, Italy, Japan, Norway, Ontario, Quebec, Russia and Switzerland beside a large exhibit from this country in which the New York City men have promised to outdo all their previous efforts, and will set the pace for photographic styles in America.

Demonstrations showing how these results may be accomplished will be given by Pirie Macdonald, Dudley Hoyt, A. F. Bradley, and others. B. J. Falk will instruct in Copyright Law.

Among the speakers from the West are Elbert Hubbard, Harry A. Bliss and J. E. Mock.

Chas. R. Wiers, of the Larkin Co., will talk on "Business Correspondence and Business Getting," and many other features will be sprung; among them, an Autochrome Exhibition by lantern, a trip to the Ice Bridge, a Banquet, etc.

You want to keep up with the van.

You want to adopt the new styles.

You want to see them produced.

Attend the convention. Remember the change to February 25th, 26th, 27th, 1914. Your pictures should reach the Iroquois Hotel by February 20th, 1914. Howard D. Beach, president; R. R. McGeorge, secretary, and J. E. Abbott, treasurer, Little Falls, N. Y

PROFESSIONAL PHOTOGRAPHERS' SOCIETY OF PENNSYLVANIA.—THE BIG SCRANTON CONVENTION, MARCH 17, 18 AND 19, 1914, TOWN HALL, SCRANTON, PA.

ALL plans are about completed for a rousing, old-fashioned Convention with all the new and progressive features added. A big treat is in store for every member who attends.

Manufacturers' Exhibits and Demonstrations.—There will be a larger number of manufacturers and dealers present than have ever before attended a convention, and their booths will be arranged with a view to making their exhibits attractive, interesting and instructive.

We have it from a number of them that many new things will be shown and demonstrated for the first time at this convention, and from the advance information we have received, there will be some surprises in store for those who are fortunate enough to attend. Be Wise. Bring your note book with you. You will need it.

Exclusive Exhibit of Masterpieces.—There will be an exhibit of three masterpieces from each of ten of the leading photographers of America, outside of our State Association. This exhibit itself will be a great treat and a rare opportunity to study the works of those who are by general consent recognized as the peers of the photographic world.

Print Exhibit.—(This exhibition is open to Active and Associate Members.)—A new departure of the print exhibit this year will be the classification of the pictures to meet the requirements of all classes of workmen, as follows:

Class "A," Popular Cabinet Class; six pictures required.—Any six pictures, cabinet size, mounted in your regular style, or all on one card. Prints to be made from negatives from which orders have been obtained.

Class "B," Portrait Class; three pictures required.—Any size above cabinet to 16 x 20. Prints to be made from negatives from which orders have been obtained.

Class "C," Art Portrait Class; three pictures required.—May be made especially for exhibition, displaying the individuality of the artist.

Class "D," Commercial Class; three prints. —Photographs of anything in the commercial line. Size unlimited.

Pictures in any of the above classes may be sent framed or unframed, but *must not* bear the name of the photographer. *Let every photographer make an exhibit*, select the class that will be most beneficial to you, and prepare your exhibit at once. *Let us have the print exhibit this year the largest ever.*

Special Notice.—As it will require several days to judge and criticize the large number of prints exhibited, all exhibits must be in Scranton not later than March 12, 1914, addressed to J. H. Kellberg, Vice-President, The Hotel Casey, Scranton, Pa. All exhibits for manufacturers should be addressed to W. G. McCaa, Secretary, Town Hall, Scranton, Pa.

Certificates of Rating to All Who Exhibit.—Herein is where each photographer profits by his membership. Whether he attends the convention or not, each exhibitor will receive a certificate of rating, showing the exact standard of his work. The certificate will bear the signature of all the Judges, and the markings will be known only to himself and the Secretary of the Association.

Printed Criticisms and Comments.—All prints received for exhibition, will be given a number and each picture criticized and commented upon by the Judges; the good points as well as the faults will be pointed out; reasons why they are good and suggestions as to how to improve the faults will be given. All reference to the print will be by number only. Criticisms of all pictures will be printed in handsome book form and a copy of this book mailed to each member.

In addition to the criticisms of all prints, the book will contain reproductions of ten of the best pictures on exhibition with criticisms and comments on why they have been so selected. The book will also contain three brief lectures, one an article on the most vital point in picture making, viz.: "The Balance of Light." Another, "Photographic Technique," and the third, "Art in Photography." All of the above you will receive for your $1.00 Membership.

Joint Criticisms Illustrated.—A number of pictures will be selected from the different exhibits, and with the consent of the exhibitor, lantern plates will be made from them, and these pictures will be shown on the screen and criticized jointly by an artist and a practical photographer. This plan, we believe, has never before been attempted and will be very interesting and instructive, for in this way we have the benefit of the criticisms of an artist with views from a painter's standpoint, and also the opinion of a practical photographer who knows photographic conditions.

Demonstrations at Convention.—Entirely new and novel methods have been arranged for demonstrations in Portrait and Commercial Photography by experts selected for each class of work from the most careful pictorial to the everyday "bread and butter" style.

Business Side of Photography.—Practical and forceful talks wil be given on studio salesmanship and the business side of photography.

The Ladies and Entertainment.—Scranton's reputation for entertainment is too well known to comment further on it. Just come and see for yourselves. And remember we do want the Ladies. Bring them with you and come early. Be on hand Monday evening, for there will be something doing every minute and we want you to receive full benefit. Prepare your exhibit now. All employees of members will be admitted to the convention free.

J. B. SCHRIEVER, *President.*
W. G. MCCAA, *Secretary.*

INTERNATIONAL EXPOSITION OF THE BOOK INDUSTRY AND GRAPHIC ARTS, LEIPSIC, 1914

Exhibits Are Coming In Rapidly.

THE collecting of the Exhibition materials for the International Exposition of the Book Industry and Graphic Arts, which will take place April to November, 1914, at the old University town of Leipsic, Germany, goes on very rapidly. A very important part of the Exposition will be the Department of the Exhibits relating to the culture of the human races of all times and nations. From prehistoric times and primitive cultures, the plan touches all people who ever lived on earth, up to Gutenberg, the father of the modern printing science, and to our days. Here the old Chinese and Japan printing processes will be shown in operation. University and Colleges will be shown in their day work with class exercises, laboratory work and student papers. This part will interest any visitor of the Exhibition. Of no less importance are the different branches of the Book Industry and Graphics. One of them will show "The Woman in the Book Industry," another the art of illustration and caricature, lithographics, photography, stenography, colors, wood carvings, book making and book trade, musical exhibits, writing materials, stereotypy, electrotypy, cinematographics, newspapers, advertising, canvassing, libraries, measures for the protection and welfare of the workers. People interested in public school matters, will find a rare opportunity to study the development of the child, from its first breath up to the time when it leaves the schoolroom. The black children of Australia will show their graphic arts, as well as those from Greenland, the United States and Germany.

Sixty-three Classes.

The whole plan of the exhibition is now divided into 63 classes and several hundred groups, with a historical and technical department. Models and apparatus for demonstrating will be shown. The publications of booksellers and music publishers will be brought directly to the notice of the public through the medium of the libraries and reading rooms, through lectures, public readings, recitations and concert recitals, so that anything in our minds will be under the banner of the "Black Art." Many learned societies and associations connected with the book industry will have their congresses and meetings at the exhibition grounds.

An Opportunity for Everybody.

Being under the direct patronage of King Frederick August of Saxony, the Exhibition is a rare opportunity for any one having some regular or irregular things relating to the book industry and graphic arts for exhibition. While many great concerns throughout the world are sending their exhibits, it should not be forgotten, that there is one department not for rent to business exhibitors, it is open only for exposition of exhibition materials, that will constitute afterwards a valuable part of the great Museum of the Book Industry at Leipzig, the only institution of its kind in the world, when the exhibition is over. Any one may add to this department printings, writings, manuscripts, photos,

pictures, books and graphics *with no cost to himself.*

School plans and pictures of student classes, professors, teachers and buildings, photos and models of school colleges, Universities and publishing houses will still be heartily accepted, likewise drawings, lessons and papers of scholars and students. Authors and publishing houses should send samples of all books and pamphlets they have published *a good copy with order blanks* so that every exhibition visitor may have a chance to order the exhibits shown. Also editors should send the best they have. The name of the sender should always be mentioned upon the exhibit. Readers of these lines who have some materials of any kind as mentioned above for this department should direct it to *Herrn Dr. Weise, Ausstellungsgelände, Leipsic, Germany,* who is in charge of this department, and who will send also a short guide, if asked for.

PAUL O. HENTSCH, M. A.,
Leipsic.

NOTES AND NEWS

MISS BELLE JOHNSON, of Monroe City, Mo., has formed a partnership with Mr. Roy Morse and will open a new studio at Pittsburg, Kansas, as soon as rooms can be fitted up. We wish these well-known photographers still greater success.

ONE of the most compact camera catalogues that we have seen has just come to us from the International Photo Sales Corporation, 235 Fifth Avenue, New York City. It tells all about the famous "Ica" cameras, and will prove an invaluable aid for those desiring to acquaint themselves with the best in photography. Readers of WILSON'S can secure a copy of the book by writing immediately to the above address.

GETTING THE BEST.

GETTING the best location in town. Getting the best help it is possible for you to hire. Getting the best apparatus for your operating room. Getting the best and most attractive reception room. Getting the best material to use in the manufacture of your pictures. Getting the best prices of any man in town. Getting the best display in your show case.

Give all customers a welcome when they enter your studio. Give them the opportunity to select the style of picture which pleases them. Give them a few extra plates in the operating room. Give them the best possible print from their negative. Give them the finished prints when promised. Give them a good-bye smile and pleasant invitation to call again.—*Ohio Photo News.*

AN extremely interesting article by Amos Stote appears in the recently issued *Penrose's Pictorial Annual* on the work by Frederick W. Goudy, and one of the illustrations is a copy of the cover of WILSON'S. Mr. Goudy is one of our foremost designers, a master craftsman, and the type of the Village Press has a distinction of uncommon merit and quality.

ONE of the most encouraging conditions with which we start in the New Year is the fact, that the photographers in the different cities and towns are working together for their mutual benefit more than ever before. They have learned that their competitors are men in other lines of business and that by combining their own efforts, they increase each other's business. Men in all lines, both large and small, in all fields, are combining wherever possible. First, because competition is so keen that expenses must be reduced. Second because we have learned that other men in our own line of business are mighty good fellows to associate with. In years past, too much time, energy and money has been devoted in trying to secure the business of other photographers. Now we start in 1914 with the best prospects for the largest photographic year in our history. Photographers, manufacturers, and dealers are all working for the benefit of the photographers who have a standard in their community, credit rating, and who endeavor to deliver to their customers, goods as promised and when promised. They are also combining to work against the dishonest photographer wherever he is located. Photographers have learned that in order to make their own business a success, they must understand other branches of business, as well as their own and have made it a point to study them.—*Ohio Photo News.*

The "Wellcome" Photographic Exposure Record and Diary—1914

If brevity be the soul of wit, condensation is the essence of literature. Especially is it so in these hustling days, when leisure is with many people reduced to a minimum quantity. It is for this reason amongst others that the pocket guide to photography issued under the above title obtains so wide a circle of readers. It condenses into one small volume, clear, definite and precise instructions on a very wide range of subjects. All the little wrinkles and dodges which long experience has taught the successful worker are here analysed and set forth in simple formulæ and exact directions such as help the beginner and serve as a useful reminder to the expert. Development, toning, fixing, printing, the various processes of production in warm tones and colors, and the methods of dealing with errors of technique are explained, particular attention being directed in the 1914 edition to the green and blue toning, and the production of various colors by development and other methods. On the subject of exposure this book is the last word, containing, in addition to its light tables for each month and factors for plates and films, the special device attached to the cover which tells the correct exposure at one turn of the disc. Much discussion has taken place as to the best method of calculating exposure, but there is no doubt on the subject if you talk to a man who has used the "Wellcome" Exposure Calculator. As one such photographer put it, paraphrasing an old proverb, "The proof of the exposure is in the negative."

Three editions of the "Wellcome" Photographic Exposure Record and Diary are published, one for the Southern Hemisphere, one for the Northern, and the third a special edition, for the United States of America.

The "Wellcome" Exposure Record may be obtained from all photographic dealers and booksellers, and at all railway bookstalls. Price in the United States 50 cents.

Photographers all over the country are beginning to wake up to the fact that cinematography has not only come to stay, but opens a new and very profitable field.

We have received from Messrs. Burke & James, Inc., Catalogue A of their Moving Picture Cameras, which includes a selection of standard motion picture apparatus, projecting machines, making and projecting lenses, etc.

The moving picture industry—already one of the largest in the world—is really in its infancy in this country, and the future holds even more astonishing developments; hence, the time to become identified with it is *now*.

A copy of this catalogue will be furnished you by writing to 240 East Ontario Street, Chicago, Ills.; and mention WILSON'S.

The Wollensak Optical Company started in their present location with about three thousand square feet of space, which has been gradually increased until at the present time they occupy about twenty-three thousand. Their new factory will contain forty-thousand, which they anticipate will take care of their needs for a while, and as they have plenty of land in reserve, additions can be made at any time without interfering with the operation of the plant.

The new factory will be a model of its kind, with every convenience for the employees, and the latest machinery for doing the work in the best possible manner and the shortest length of time. The front building is one hundred and seventy feet long by thirty feet wide, and two stories high, with the offices and shipping rooms located on the

first floor, and the Assembling Department, Lens-Testing Department, etc., on the second floor. Extending back from this front building will be the factory building, measuring one hundred and seventy feet square, one-story high, with saw-tooth lights, which will give uniform illumination throughout the factory from overhead.

The Wollensak Company have asked us to extend a cordial invitation to readers of this publication to visit their plant when in Rochester, at which time everything that is possible will be done to make their visit a pleasant one.

Assur Colors—Simplified Use of Color-Medium

The directions for use of the well-known "Assur" Coloring Method have been further modified by the change in the instructions for the use of Color-Medium. Formerly it was stated that "A small quantity of the desired color is taken and rubbed up on the plate with but very little Color-Medium." Absolute uniformity was impossible because one could not be certain of the quantity taken up at different times. This difficulty is now entirely overcome, absolute uniformity is assured and the manipulation is much simplified by the folowing method:—

In about 1½ ozs. of turpentine dissolve about 60-100 drops of Color-Medium and use this solution for mixing the colors. The linen is wrapped around the index finger dipped

into this solution, the color is then taken up and thoroughly rubbed up on the plate and applied to the photograph with circular motion.

For washing in clouds or highlights pure turpentine should be used.

"SATISTA" is a new Photographic Printing Paper prepared with Platinum and Silver salts. When printed it gives splendid results scarcely distinguishable from the well-known "Platinotype" so greatly admired for its artistic and permanent qualities. The finished picture on "Satista" contains both silver and platinum. Although it is possible to remove the silver in this image by chemical means, the unaltered Platinum will remain in sufficient quantity to represent the shadows and all the detail in the original picture. Hence the prints on this paper are permanent in the sense that all the detail is preserved. Sole American Agents, Willis & Clements, 1814 Chestnut Street, Philadelphia.

BUILDING AGAIN. THAT'S ALL JUST NOW.

PHOTOGRAPHING UNDER WATER.

IN the *Scientific American* for April 4th, 1908, was published an illustrated description of an apparatus devised by C. Williamson of Norfolk, Va., for carrying on operations under water. The apparatus was designed to take the place of the ordinary diving outfit. Broadly considered, the apparatus consists of three parts: (1) a floating vessel of any suitable design; (2) a submersible terminal operating chamber in which the work is carried on at the bottom of the water, and (3) a collapsible flexible metallic tube connecting the vessel and the terminal operating chamber.

Various types of terminal chambers are used, depending upon the class of work to be carried on; but usually the equipment of a terminal chamber consists of tools operated by compressed air or electricity, and mechanical sleeve extensions with attached mitten, in which a laborer may slip his arms and perform his work. The collapsible tube communicates with the atmosphere, so that the laborer may perform his work under normal atmospheric pressure and therefore much more conveniently than would be possible if he resorted to the usual diver's costume.

This apparatus was recently used in Hampton Roads to make submarine photographs. The tube and work chamber were lowered from a thirty-foot barge through a well six feet square in the bottom of the barge. To take the under water pictures a funnel six feet long with a two-foot six-inch glass port at its large outer end was bolted to the work chamber. Mr. Williamson's son descended into the work chamber with an ordinary camera. A frame containing a reflector and a battery of electric lights, aggregating 1,000 candle-power was then lowered from the deck of the barge so as to light the area around the port. Section after section of the tube was added until the work chamber had reached a depth of thirty feet. Photographs were taken at that depth. The apparatus was then raised to intermediate depths and more exposures made.

Daylight tests were conducted which proved that at depths between ten and fifteen feet photographs of passing fish and objects could be made with exposures varying from 1/10 to 1/75 of a second. The water in Hampton Roads is not very clear, but the experiments showed how much could be accomplished in submarine photography, in the clear waters of tropical regions with an apparatus especially designed for the purpose.

CURRENT TOPICS IN LEADING PERIODICALS.

Backing Plates. Jan. 16th *British Journal.*

Corrected Lens in Pictorial Work. The Jan. *Platinum Print.*

Coloring Photographs with Oil Colors. Jan. *Photo-Era.*

Care of Lenses, The. Jan. 16 *British Journal.*

Drying Negatives and Prints. Dec. 26th *British Journal.*

Factorial Development. Dec. 19th *British Journal.*

Fixing the Color of Powder-Tinted Prints, A. J. Jarman. Jan. 21st *Bulletin.*

Group-Portraiture. Dec. *Photo-Era.*

Harmonizing Developing Formulas. Jan. *American Photography.*

Hypo-Alum Toning. Jan. 9th *British Journal.*

Making Relief Portraits in Plaster by Photography. Jan. 7 *Bulletin.*

Making Carbon Tissue. Jan. 7th *Bulletin.*

Photography of Statuary, The. Jan. 6th *Photography and Focus.*

Platinum—Its Discovery and Manifold Uses. Jan. 14th *Bulletin.*

Studio Cameras. Jan. 2d *British Journal.*

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VOLUME LI NUMBER 1

WILSON'S Photographic Magazine

AN ILLUSTRATED MONTHLY
DEVOTED TO PHOTOGRAPHY
FOUNDED IN 1864

MARCH · 1914

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STUDY

BY IMOGEN CUNNINGHAM

SEATTLE, WASH.

WILSON'S PHOTOGRAPHIC MAGAZINE

FOUNDED IN 1864 BY EDWARD L. WILSON

VOL. LI MARCH, 1914 No. 3

IMOGEN CUNNINGHAM—AN APPRECIATION

BY FLORA HUNTLEY MASCHMEDT

"PHOTOGRAPHY is a medium of expression that requires a dual sort of mentality," says Coburn, "it is marraige of science and art." Judged by this standard Imogen Cunningham takes high rank as a photographic artist. On the technical side she has given very careful and thorough preparation to her work. Two years' study with E. S. Curtis, national authority on the North American Indian, gave her practical experience in work with the public as well as an inspiration for further study. On graduation from the University of Washington she won the Pi Beta Phi scholarship for 1909-10, and spent a year at the Techniche Hochchule at Dresden, under Herr Doktor Luther.

But a mastery of the science of photography alone would not account for the Imogen Cunningham photographs. In addition to the hand of the skilled mechanic there is the eye of the artist back of all her work. Since there can only be light and dark in the photograph the two must be properly balanced. In this respect her photographs are excellent. The lights hold together gathering the vision and drawing the eye to the center of the picture—the face of the portrait. The values are sympathetic; the lines rhythmical whether in background accessories or drapery. Composition presents the same problem to the photographer as to the painter and in its mastery Imogen Cunningham has shown herself an artist.

The ordinary sitter may be unaware of all this, but he feels that he has been adequately interpreted. He has a real picture as well as a correct likeness. To achieve this result requires, on the part of the photographer a "sense of beauty of the inner man." To use Imogen Cunningham's own words, "One must be able to gain an understanding at short notice and close range of the beauties of character, intellect and spirit so as to be able to draw out the best qualities and make them show in the outer aspect of

the sitter. To do this one must not have a too pronounced notion of what constitutes beauty in the external, and, above all, must not worship it. To worship beauty for its own sake is narrow and one surely cannot derive from it that æsthetic pleasure which comes from finding beauty in the commonest things."

BOY WITH INCENSE

BY IMOGEN CUNNINGHAM

It is this ability to see possibilities, to recognize the "worthily photographic," that enables her to do imaginative work. Her *Pélleas* and *Mélisande* is an example of illustrative treatment, while *Wind* and *Conscience* are purely allegorical. Whether this is creative work or only the reproduction of the beautiful already existing in nature, must be a matter of individual opinion; the composition, at least is the work of a "thought artist" and, in the future, Imogen Cunningham will undoubtedly do more of this and less of ordinary portraiture, where the work of the photographer must always be somewhat hampered by the ordinary sitter.

An account of Imogen Cunningham's work would be incomplete without a glimpse at her studio. One of the regrades for which Seattle is so famous, leaves an old-fashioned door-yard some feet below the street. In the center of this sunken garden, surrounded by cherry trees, stands a tiny old cottage, half covered with vines. A brass knocker bearing the motto *Sine Fine,* invites you to enter.

The interior is no more suggestive of the ordinary gallery than the approach. A brick fireplace in the very center of the room gives warmth and coziness and its receding chimney leaves a shelf on each side where a picture or a bit of pottery is seen. Hangings of old blue form a good background for the few photographs displayed. A feminine tone given by books and growing plants is heightened to an almost domestic color by toys upon the floor, and particularly two German dolls, snuggled in a corner of the couch. In the next room are desk and table, suggesing literary work and, from behind a screen, Miss Cunningham will presently appear with a cup of tea for you, if it is late in the day, while she discusses late fiction or grand opera or her friend's babies.

There is nothing of the aggressive business woman in the appearance of this successful artist. She might have left a pie in the oven or a baby in the nursery or have just discarded her tennis racket as she comes forward to greet you. It is this humanness which gives her personal charm as well as skill in interpretation. Her interests are wide and she touches life at many places.

Though young in her profession, Imogen Cunningham has won honors and recognition. She is a member of the Seattle Fine Arts Society and has exhibited many times with the Society of Seattle Artists. In the International Exhibiion of Pictorial Photography, recently held in New York, she was one of thirty-eight whose work was accepted. The Brooklyn Institute of Arts and Sciences also honored her this year with a "show."

Her friends are proud of her success as a photographic artist, but they take almost equal satisfaction in knowing her

to be a broadminded, versatile woman. In these days when we hear so much of the infringement of professional life upon the home, the opinion of a woman who has succeeded is always of value. The words of Imogen Cunningham reflect so much of her personality and are so well worth while, that we quote from her article on *Photography As A Profession For Women.* She says:

"An ideal profession for women is one which she does not necessarily have to lay down permanently in the care and rearing of children. The pursuit of any art brings woman in contact with the larger interests of the world, and her excursions into broader fields, even during the rearing of children, is bound to have an enlarging effect upon the home. To deny a woman the right to extend her energies in the search for knowledge or to express herself through some individual work or art is hampering her usefulness in her highest sphere—motherhood.

"But, on the other hand, though a woman gains immensely in breadth and culture through a useful profession, she also gives something—something vital and energetic. Her face may betray the lack of leisure, may possibly show some of the strain of her work, but, for my part, I cannot see that a woman of conspicuous leisure grows old more gracefully than does her energetic and creatively active sister. This is, however, a minor detail in the consideration of a profession—for any work which one loves brings with it a peace and satisfaction for which no amount of repose and elegant leisure can compensate. Being devoted to one's work is much like hearing a great Wagnerian opera with one's soul open. The energy and vitality of life seem for a time sapped, but come back in renewed quantity and quality."

IDYLL

BY IMOGEN CUNNINGHAM

With such a philosophy of life and with perfect mastery of expression in her chosen field, it is easy to see why Imogen Cunningham is a real artist.

Work means more for your soul than it does for your body.

It takes time and much effort to overcome certain obstacles, this is done by recognizing them and figuring with them and not worrying about them.

The worst failure in the world is recognizing your own limitations.

There never was and there will never be any growth in slander.

A smile is better than a frown at any time.

If you think failure and speak failure you are sure to be a failure.

PICTORIAL PORTRAITURE

THE KIND THAT BRINGS BUSINESS

No man can hit a mark without aiming at it; and skill is acquired by repeated attempts.

How eagerly the leaves of every new number of the magazines and journals, literary and photographic, are opened to feast the eye on the pictures! How quickly, even the small-town photographers of limited advantages and experience pick out the pictorial gems. And how often they say in despairing words: "Oh! I wish I could make pictures like these!"

Do they stop to think that these pictures cost their makers much study and practice? Do they consider that the makers of these pictures laid more stress on art principles than on materials? Do they realize that the application of these same art principles results in what are called pictorial qualities—qualities that command higher prices and afford an entry to a more cultured article of buyers,

Do they know that these artists long ago realized that they must constantly aim at the mark of quality if they wish to hit it; and that each attempt gave them more skill? They didn't look only a few inches ahead and say: "I am perfectly satisfied with my work, it is good enough." They remembered the old saying: "Good enough is good for nothing."

They wasted no time in conceit, but kept on aiming at the mark, and finally hit it; scored a bull's eye, and went on record as successful artists. Their work, too, was neither prettiness nor popularity. It was pictorial qualities and good composition, worked out through their individuality.

Would Washington have hit the mark had he said to his men: "It is pretty cold here at Valley Forge, you may pull the priming from your guns, and we'll go home where the back-logs blaze; next spring, perhaps, the enemy will abandon the cause." No, he stayed and suffered with his soldiers, maintained his position and aimed at the mark of freedom with the flint-lock of determination. He hit it, too, else you and I would not to-day be enjoying the privileges of American citizenship.

Enthusiastic Edison never hit the mark by curling up by his laboratory stove, dreaming and hoping, as some do, that something would turn up and become a talking-machine. No, he made copper and carbon, wood, chemicals, and rubber, until they talked back to him. Night and day he held the bow of persistency and the arrow of penetration right on the target. Did he hit it? The echo "yes" comes from thousands and thousands of homes enjoying the pleasures of the phonograph.

John Wanamaker is another good shot. His skill didn't come either, by bobbing on the banks of the Schuylkill looking for bull-heads. He studied calico and tape, dress-goods, and how to please his customers. He aimed often and scored early; and the mark he hit is visible to any eye that looks down the busiest part of Broadway.

Take off your hat to Napoleon Sarony, who scored a great success by cutting loose from the same old positions and traps used by every other photographer. He studied art, learned pictorial effects and incorporated them in his portraiture. With unerring aim he landed square in the middle of the mark, and for years to come the world will applaud his inimitable skill.

E. B. Core is another man who hit it when he concentrated his efforts on children's portraits.

Hollinger hit it hard when he gave his originality full swing and abandoned the use of commercial cards, stereotyped positions, and lightings. If you doubt it, go to New York and sit to him for a portrait. He will charge you ten dollars for the first copy, five dollars for each duplicate print. This came by his aiming often at the mark, not by wasting his precious time dabbling in all the popular formulas, accessories, mounts, etc.

Hollinger is unique, his originality stands out strong, he has a hold on a class of customers that appreciate his masterly productions and are willing to pay his price.

We have one Hollinger, and he is a good one. It's all we need; a duplicate of this master would kill the individuality of each. Still, regardless of this fact, some photographers are making their lives miserable trying to make their portraits indistinguishable from real Hollingers.

What folly! Their own individuality will grow just as strong, perhaps, as Hollinger's if they but give it a chance.

Copy Hollinger's *method of observation*, of studying things (lights, shades and expressions) outside of simple photographic craftsmanship. His pictures have pictorial qualities. So will yours if you take a firm stand and ask art to aid you. Remember, too, it isn't necessary to leave your present field and rush to a big city; because, even in a small place, you can develop a higher class of trade. You will find plenty of patrons for pictorial photography if you learn how to do it and show your skill. Then, when you have outgrown your little field and your ambition is at white heat, go to a larger town. But that point is easily solved. When you have incorporated your individuality in your portraits, when you understand how to make real pictures—pictures with *pictorial qualities*.

Don't forget that each day more clearly defines the field of the specialist. Not only the broad field of specialists in children's pictures, men's pictures, women's pictures, etc.; but the field of individuality is the high plane you must strive for. Supposing it does start the perspiration and make you think hard, isn't the prize worth winning? To rest, you know, is to rust; and *"no man can hit a mark without aiming at it; and skill is acquired in repeated attempts."*

SOME GOOD ADVICE—GET BUSY NOW

It is none too early to get your show case full of samples for the Easter business.

Don't be afraid to lose a few cents advertising. Get the people started towards your studio early in the year. If you can make pictures of one member of any family before Easter, there is a good chance for you to get another order from the same family before the next Christmas season. Get on to your job now. Plan for the future. The days, weeks and years roll around so fast that before you really know it the opportunities are lost. Don't cut prices, but have the same price for the same work to every one who enters your studio.

Work as if you enjoyed the work. Get enthusiastic over your work and talk it to your customers; even if they don't order, let them go away convinced that you are interested in your own work and know how to talk it. It is a mighty easy and pleasant thing to do that part of the work which we enjoy and then try to shove the rest off on some one else or slight it. The man that does every part of his work to the best of his ability has no need to worry. In fact, he has no time to worry. It is the man who has half a dozen different prices who slights his work, does not deliver it when promised, spends his money before he gets it, that is worrying all the time. It is the man that is not afraid to do a little extra work and overtime, if necessary, to make sure that customers get a little more than they expect that wins. Try it and see how thoroughly you will be advertised.—*Ohio Photo. News.*

THE DESIGN OF PHOTOGRAPHIC STUDIOS

BY DRINKWATER BUTT, F.R.P.S.

FROM the earliest days of photography much thought has been given to, and many experiments made in, the design of this the most important portion of the premises devoted to the art.

The history of the photographic studio is an interesting one, from the early Daguerrotype period when the quantity rather than the quality and direction of the light was the main consideration, and when the typical studio was that illustrated in the well-known woodcut "Photographic Phenomena" by George Cruickshank, through the "tunnel" designs of Monkhoven and Wortley, and the first top and side lighted studio of Rejlander, to the more modern forms evolved to meet modern conditions of working. It is, however, with the latter that this article proposes to treat, and the writer, at the request of the Editor, will set forth the various points to be considered in the designing of studios for present day use.

The first of these is, naturally, that of size, and here it may be stated that in most cases the "happy mean" will be found to be the best, and that neither a very large nor a very small studio is usually a desirable thing; the former being often difficult to light, heat and ventilate, and uncomfortable in use, while the latter suffers from the defect that the sitter is perforce brought too near to the source of light, and that there is but little space for the storage of backgrounds and other accessories.

Of the dimensions of a studio the one that should receive the first consideration is that of the length, and the next that of the width, and, after these have been settled in a satisfactory manner, any surplus area is often better devoted to providing a storage apartment for accessories, etc., communicating with, but not forming a part of the studio, than putting it into the operating room itself.

This arrangement will also often facilitate the artistic decoration of the principal apartment, and make it more of a normal inhabited character, and prevent its assuming the appearance of a lumber room or funiture store, as is sometimes the case. The question of space has also to be considered in connection with that of aspect and the planner has to get, if possible, the long sides of the studio to the North and South, so as to get the main lighting area towards the former point of the compass, whence the most equable illumination is to be obtained: it being understood, of course, that the present article deals only with daylight studios, and not with those lit by electricity or other artificial illuminant, in which latter case the question of aspect becomes negligible.

If a due North aspect cannot be obtained, then one rather to the East of that point is the next best substitute, as then the sun will be off the lighting area early in the day, and before the busy time in a good class business may usually be expected. In this connection, too, the presence of any surrounding buildings must be taken into consideration, and attention given as to whether they are likely to obstruct the working light, and whether they may be possibly utilized to afford protection from the direct rays of the sun in cases in which a due North aspect cannot be obtained. With buildings directly opposite the lighted side of the studio it may generally be assumed that any which do not subtend an agle of forty-five degrees, set up, as shown in the accompanying diagrams, from the level of the base of the side light of the studio, will be negligible as regards the stoppage of light: but in all cases of surrounding buildings which may themselves be strongly lit, and so reflect light into the studio, their color and position should be very care-

fully taken into consideration, or it may be found that a bright red brick wall opposite, may be the cause of considerable trouble, by necessitating increased exposures, while a white one may sometimes be utilized to play the part of the "white cloud," which is supposed to be the best reflector and diffuser of the sun's rays for photographic purposes. With regard to the length of a studio, the question of what lenses are proposed to be used in it, comes in, and with the majority of modern portrait combinations it will be found that from a twenty-five foot minimum to a thirty-five foot maximum will meet the case. Further length than the latter is seldom desirable, though sometimes useful where a large number of backgrounds are in use, but even then, the latter are generally better kept in a "scene dock," if such can be arranged for, extending at right angles with the length of the studio itself, and from which they can be drawn out as required. This is, of course, supposing that stretched backgrounds, which, in the opinion of the writer, are really after all the most convenient, are to be used. In a short studio, or in one in which a constant succession of new backgrounds can be afforded, one of the stands for rolled backgrounds can, of course, be used, but the latter do not wear so well as stretched ones, and are apt to develop ugly creases after but little use.

This, however, is a digression from the design to the fitting up of the studio, and as regards the former we may next consider the question of width, for which, speaking generally, a fair proportion is about half the length; and so a studio of about thirty-two feet by sixteen feet may be considered a fair size for average portrait work.

Further points to be tried for in the planning of a studio are, ease of access from the reception rooms, and the provision of dark room accommodation immediately adjoining. If the latter cannot be given, a changing room is at least a necessity, but a fully-equipped dark room, where developing can be proceeded with simultaneously with the operating in the studio itself, is highly desirable, as, in many cases, the operator is desirous of seeing something of his results while the sitter is still in the latter. To facilitate entrance and exit, without the admission of light, double doors or a lobby should, if possible, be provided.

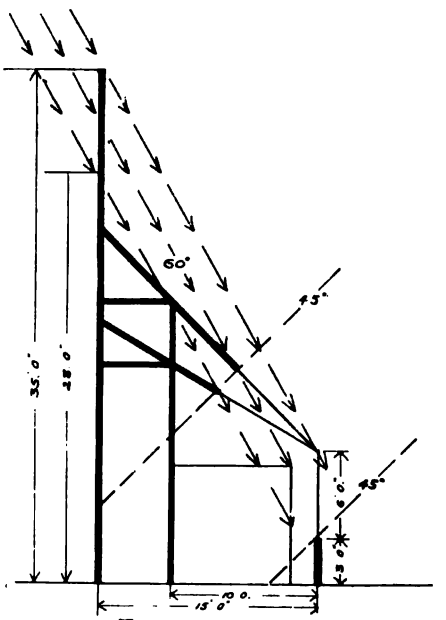

FIG. 1. LEAN-TO.

When the planning of the studio has been duly arranged to the best advantage in the space available, the next consideration is as to what form the cross section is to take, and here we have, practically, four forms, the "lean-to," the "ridge," the "single slant," and the "ridge and slant," each of which has its own advantages and disadvantages, and all of which are shown in the accompanying diagrams, in which latter the thick lines show the solid portions of the walls and roofs and the thin ones the glazing.

In Fig. 1 we have the ordinary form of "lean-to" construction, which is often the cheapest, also, especially when there is already in existence a wall against which it can be built. With a width of fifteen feet and a pitch of forty-five degrees to the roof, it will be seen from the diagram that the latter tends to become somewhat long and, consequently, costly, a defect, however, which may be

slightly reduced, both in that case and in the one in which the studio is shown as ten feet wide only, by making the upper portion a flat, which, in a position in which it was accessible, might be used for printing or other useful purposes. The cost and size of the roof might also be reduced by making the pitch only thirty degrees, as also shown on the diagram, but that again has the disadvantages that snow would lie upon it much longer than upon one of steeper pitch, and the light be made to fall rather more vertically than desirable on to the sitter. The question of pitch is also governed by the fact that the maximum altitude of the sun above the horizon, in summer, is a little over sixty degrees, and, therefore, unless the roof of the studio approaches that angle in steepness, or is protected in some other way, the sun will shine directly into it at mid-day at midsummer at least. On the diagrams I have endeavored to make this clear by the descending arrow lines to the left, which show the meridian altitude of the summer sun and how it affects each form of studio depicted. In the case of the "lean-to," however, we may fairly assume that this section would not be chosen unless there was already in existence a wall for it to be built against, and that, therefore, it would probably be protected from the South, in which case we could afford to have our roof flat in proportion to the vertical extent of the protecting wall above, as shown in the diagram. From the foregoing facts we may conclude that the "lean-to" form is best adapted for studios of somewhat narrow width, certainly not more than twelve or fourteen feet wide, and which are protected from the sun on the South side; while a suitable pitch for the roof is about forty-five degrees.

Next, in Fig. 2, we come to the symmetrical "ridge" form, in which, probably, the greater number of existing studios are built. Its advantages are that its familiar form makes it easy of construction by the ordinary builder; that almost any width can be covered by it: that it gives plenty of headroom for

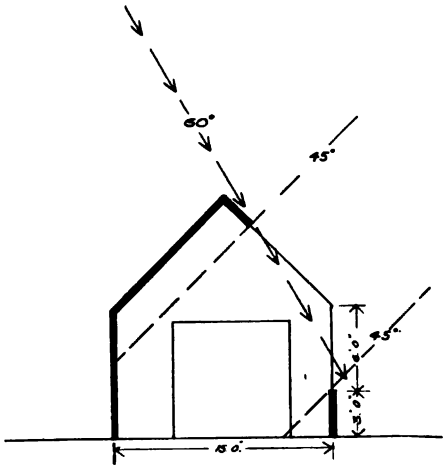

Fig. 2. Ridge.

the easy moving of backgrounds etc. (apropos of which I may say that the square in each diagram represents an eight foot stretched background); and its roof can be of almost any pitch desired. That in the diagram is shown at an angle of forty-five in which case, however, unless erected in a sheltered position, it would require a vertical sun screen at the ridge for a while in the middle of summer, to keep out the direct rays. By making the slope of the roof sixty degrees, and placing a flat on the top, as shown in Fig. 3, this could be avoided, but in that case I think the single slant form there depicted would be better. One of the defects of the "ridge" form of construction, and one that shares with the "lean-to" and the "ridge and slant," is that as ordinarily constructed, there is generally a necessity to make the wall-plate at the eaves of such dimensions that it become an obstruction to the light and thus often produces a double high-light in the eye of the sitter, which must either be taken out with the knife on the negative or with the brush on the print. There is also the necessity for two complete sets of blinds, one for the roof and one for the side lights which, when both opaque and transparent ones are used, as is now almost universally the case, produces a great complication of wires, cords, and pulleys to distract the attention of the operator from what should be

his principal occupation of posing and obtaining from the sitter the good expression which is the selling quality of the final print.

Taking all these points into consideration, my own preference, both as an operator and a designer of studios, runs very largely towards the "single-slant" form, as shown in Fig. 3.

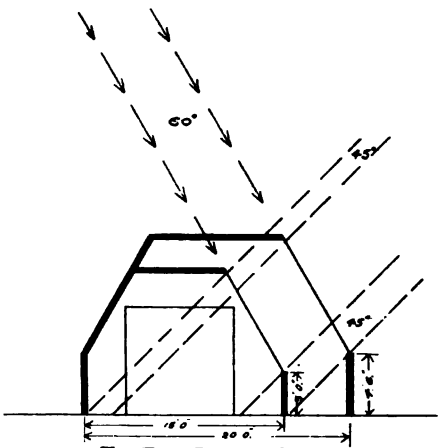

FIG. 3. SINGLE SLANT.

Here, in the first place, by the pitch of sixty degrees, we are freed from the undesired attentions, in summer, of our best friend and enemy, the sun; there is no trouble with snow, which easily slides off; or, where one of the modern forms of puttyless glazing is used, with rain, either; the glass is easily cleaned inside and out; and with one set of opaque blinds on spring rollers, pulling down from the ridge and another up from the bottom, and a series of transparent ones running on horizontal wires within, we have every possible control of the lighting, and the reasonably intelligent operator can obtain almost any effect he may desire.

The only thing difficult to obtain at times, and that only in narrow studios, is perhaps a flood of direct top light, but even this may be got by working rather diagonally, and unless there is a fair amount of width then it is not altogether a good studio for copying. It may, therefore, be said to be more suitable for fairly wide studios than for narrow ones, and in the former case, as shown by the diagram, there is more headroom, respecting which latter point it must also be remembered that in any form of studio any necessary ties must not be less than nine feet from the floor in order to admit of the easy movement of background, etc., beneath them.

It is, of course, not absolutely necessary that the two sides of the roof of a "single-slant" studio should be of the same pitch, or have the flat as shown on Fig. 3, and the roof may be of the unsymmetrical form shown in Fig. 4, though this has the disadvantage of giving an ugly interior shape and one more or less difficult to decorate satisfactorily at the ends, at both of which the writer generally likes to devise permanent fixed backgrounds, in some defi-

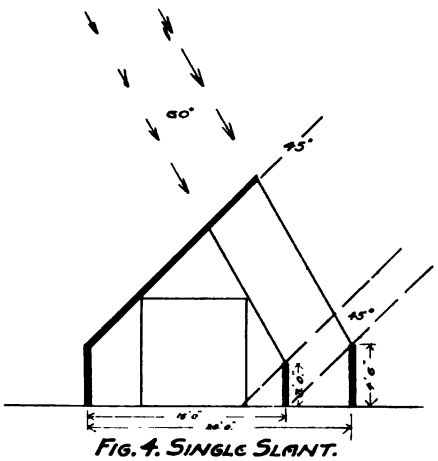

FIG. 4. SINGLE SLANT.

nite style, such as Tudor or Adams panelling, tapestry, etc.

Presupposing that the solid side of the roof of an unsymmetrical studio is to be at an angle of forty-five degrees, Fig. 4 shows the relative sections that would be obtained with widths of sixteen and twenty feet, with a "single slant" of sixty. It will also be seen that the narrower of the two widths shown is the limit that would take an eight foot stretched background. The glazing is shown as carried down to three feet from the floor in the narrower and four feet six in the wider of the two sections which is sufficient in either case for the illuminaton of full length figures and groups.

Another section of studio, which the writer believes has been more used in America than in England, is the "ridge and slant," shown in Fig. 5, which, although combining advantages of both

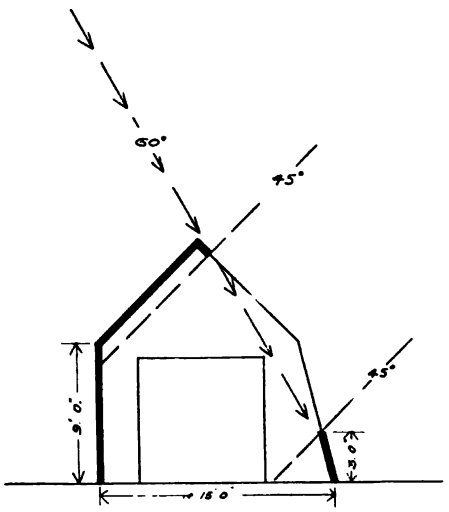

Fig. 5. Ridge & Slant.

methods of lighting has the disadvantage of increased cost of construction and of the presence of wall-plates which the "single-slant" avoids. I believe the latter defect has also been eliminated by Strauss, of St. Louis, by the use of bent glass at the junction of side and top light, but that again is an expensive form of construction, and, I think, there must be some difficulty with regard to the blinds with it.

The section of the studio having been decided upon the next thing is the settlement of the actual area of the glazing, and here it is always well to err on the side of having a sufficiency, as glazing is no more expensive than solid roofing, and a superabundance of light can always be blinded out when not required. In very short studios the glazing may be even carried right from end to end, but in larger ones from three to five feet of the roof may be left solid at each end to shelter the backgrounds from the light when a dark atmospheric space behind the sitter is required.

A convenient width for the spacing of the sash bars is from one foot six inches apart in small studios, to two feet six inches in large ones; and the spring roller blinds may cover one or two bays as desired.

For the actual glazing, in most situations, there is nothing better than ordinary white plate or sheet glass, the former when expense is not so much an object and the latter when it is. Plate may also be obtained of such sizes that no lapping is necessary, and unsightly, dirt-collecting joints be thus avoided, and with it and one of the many forms of patent glazing bars now obtainable, a thoroughly satisfactory roof can be obtained. In situations that are overlooked, what is known as cast plate is about the best means of preventing the studio being seen into from without, while stopping but a very small percentage of the light, but ground and other rough surfaces are to be avoided as stopping a good deal more and being very tenacious of the dirt that settles on them.

Other points which must receive careful attention in the design of studios are the heating and ventilation.

For the former, in England, we use hot water and steam heating, and both gas fires and radiators, as convenient and dustless methods of heating, but electricity is at present generally too costly to warm the large cubic contents and heat radiating glass roofs of studios. In many, the open coal fire is, of course, also used, as much for its cheerful effect and as forming a useful accessory as anything else, but its dust-raising qualities are gradually leading to its supercession in favor of other methods of heating.

For ventilation, electric fans and extractors are in general use, as the current for them is to be obtained at power rates, and we have, of course, many patent and other systems of natural and artificial ventilation, Tobin tubes and Boyle ventilators, being among the former methods favored by the writer.

A final point in the design of a good studio is to see to the provision of a good, well-laid floor, free from vibration, and preferably of a polished surface, over which the camera, etc., will move easily, and which can be readily kept in a clean and dustless condition.

IMPORTANCE OF NEGATIVE INTENSIFICATION

BY "PROFESSIONAL"

In the making of negatives upon gelatine plates, no matter by what method they have been developed, or the kind of developer employed, whether it be pyro and ammonia, pyro and soda, hydroquinone, metol, or by any of the newly got up developers, it so happens at times that the negative must be intensified to enable a good, or even presentable print to be made from it, especially if a platinum print is to be made from it. Good brilliant prints made upon any of the silver papers, whether by development or otherwise, require a good negative with a certain amount of contrast to enable the resulting print to possess brilliancy.

Under circumstances where the negative is too thin to give a brilliant print, intensification must be resorted to; the question only too often arises with many of the photographic profession to-day, what intensifier should be used to give the best results? It is a good thing for the photographer to know the composition of the developing or intensifying agent that he uses. Intensification is not a process of redevelopment, it is simply a change in the charatcer of the image in the gelatine film. Bichloride of mercury, in some form or other, is used to whiten the image, bringing about a compound of mercury and silver upon the plate, which can be changed in color, so as to make some parts of the negative more opaque, as a light screen by virtue of creating a color that is more impervious to light than the original deposit gave, this is not *redevelopment*, it is simply a change in the color brought about by changing the composition of the image.

Some photographers continue to employ the Uranium Intensifier, as I used to do, especially for many of my marine views and yacht negatives; although this intensifier answered fairly well, I gave it up for the one specified here, which I can recommend as one of the best and most reliable of any I have tried. Every negative made by me during the present season, that required just a little intensifying, or a moderate intensifying, has been strengthened by this, what I call "my right-hand intensifier," the negatives being 6½ x 8½ and 8 x 10, the brilliant prints from these negatives fetch good prices from the various publishers because of their perfection for making half-tone plates from. I am very particular about the proportions of the ingredients, as I find that by strict attention to this, my negatives are uniform in their intensification, possessing a transparency, as well as the right density, which I have never been able to get with any other intensifier. I use a milk pitcher (not glass), and stand this into a small, enamelled boiler upon a gas stove. Into this I place

Distilled water	16 ozs.
Ammonium chloride	3 drams.
Bichloride of mercury	3 drams.

The water must be brought to a boil.

The mercury and chloride will soon dissolve with a little stirring; I then add another pint of distilled water and let it stand for twelve hours, at that time I pour off all the clear portion, and throw the dregs away, I never filter this preparation, either through cotton or paper, for fear of contamination.

The blackening solution is made up of

Pure sodium sulphite	3 *Troy* ozs.
Distilled water	15 ozs.

This is well shaken until the sulphite has become dissolved.

The negative is now well washed after it has dried; this second washing is to be sure that no trace of hypo is

SADAKICHI HARTMANN

BY RUDOLF EICKEMEYER

MADE WITH MR. EICKEMEYER'S SPECIAL LENS

left in the film. It is now placed in a tray (I always use a tray 10 x 12), and the mercury mixture poured over it; keep the tray in motion; for a thorough intensification, bleach the image right through; if for only slight intensification half a minute's bleaching will suffice. Remove the negative, wash under the tap, place it into another tray, pour on the blackening mixture, keep the tray on the move, in about one minute it will be blackened right through; lift the plate, then wash it, when it will be found to be intensified to a uniform and satisfactory depth, when dried down, it will not be so dense as it appeared to be when wet. Examine it well, make a print from it, then you will see the reward for all the trouble that has been taken. The professional photographer will pick this intensifier (if carried out to the letter), as the best he has ever used. I have not observed any change in the color or quality of any of my negatives, although used with aristo platino for direct printing as well as by artificial light for developing papers, they withstand the work, year in and year out. These preparations can be used many times over without detriment, until they are exhausted.

PLATINUM PRINTING

Modifications Produced by Variations in Strength and Temperature of Developer

An Address before the Royal Photographic Society -*Concluded*

BY W. H. SMITH

Japine Sepia—Effects of Developer on Gradation and Color, Extra Warm Tones

Japine sepia has proved to be a great acquisition to those who prefer a smoother surface and warmer tones than can be obtained on the normal sepia papers. It is made in three varieties, medium thick, extra thick and buff. Japine sepia is not intended to replace the ordinary sepia, nor can it do so, but both qualities may be used with advantage.

For artistic work the ordinary sepia cannot be surpassed for beauty of surface, color and delicacy, but at the same time it is not always possible to secure negatives which give the best results on sepia papers. A greater variety of negatives may be used for Japine sepia because the results may be modified in eral ways. The latitude in printing is very considerable, and it is possible to get hard or soft results with the greatest of ease. This paper is easy to use and is very uniform in quality, the surface is very hard and there is no risk of abrasion during washing operations. Different effects from one negative may be produced with certainty.

Latitude in printing may be shown in the following manner:

Take a negative which requires, say, ten minutes to print from, for a normal print, then make several prints giving 8, 9, 10, 11, 12 and 13 minutes' exposure, and develop in the normal Japine developer. The result will be half a dozen prints of varying depth but all of them good in color, gradation, and transparency. Make another set of three prints all of the same exposure, develop one in a sepia developer heated to 160 degrees Fahr., the second in a Japine developer at 150 degrees, and the third in a Japine developer mixed with one-sixth its bulk

of glycerine at 130 degrees, and the result will be—No. 1, a soft print, No. 2, a more brilliant one, and No. 3, a very brilliant print with dark transparent shadows.

Developers containing glycerine should not be heated above 130 degrees as overheating decomposes the solution.

To get the best results full development should be given, not less than 30 seconds for each print.

A developer containing glycerine should not be overworked, an old developer gives increased contrast, and although this may sometimes be desirable it is not to be recommended; the better way to obtain heavy contrasts is to use a developer containing more than one-sixth its bulk of glycerine, up to one-third may be used. For general use the Japine developer without glycerine gives sufficient contrast.

Japine sepia should be printed to give the right depth on development, in the clearing baths they will appear to be too light, but will darken on drying. Finished Japine prints have a much finer appearance if hot pressed. Dry mounting is the most satisfactory method of mounting Japine prints.

Platinotype Fabrics

Many kinds of fabrics may be prepared with platinum, but the most suitable are linen, cotton and silk. Those sensitized by the Platinotype Company comprise fine and coarse linen, sateen and nainsook, silk and satin.

For black tones, either of these materials give good results, but for sepia tones sateen is to be preferred. Prints on fabric are as easy to make as prints on paper; all operations are practically the same.

Printing requires a little more care and should be controlled by an actinometer, because if a print on fabric is examined in the printing frame, there is a risk of its not falling back into correct registration on the negative; this applies more particularly to nainsook and silk, both these materials being of a somewhat flimsy nature.

The best method of procedure is to expose a trial strip, develop, fix, wash and dry it. It is advisable to dry the trial print, as depth is difficult to judge when it is wet.

In developing it is best to float the print face down on the developer until fully developed, linen and cotton require about a minute, while silk may take much longer, with correct exposure it is impossible to over-develop. Prints may be developed face up, but this causes the image to sink in. After development three or four changes of acid clearing bath, and an hour's washing in several changes of water should be given, and in order to neutralize any trace of acid, the last but one washing water should be made alkaline by the addition of a small quantity of carbonate of soda. The prints may be dried between blotting paper or suspended in the usual way.

Dried prints are improved by laying them face down on blotting paper and passing a hot iron over the back, in just the same manner as one would treat a handkerchief.

Dirty platinotype fabric prints may be cleaned by washing and boiling in the same way as a piece of plain fabric. Mounting may be done by sticking the print on to a mount coated with starch paste (dry mounting is not suitable, as the adhesive tissue shows through), or it may be stretched on a frame. Thin fabrics such as nainsook and silk are improved by being mounted on a white mount, but thicker material does not require a white backing and looks well if stretched on a frame. A very good way is to tack the print on a frame, and then to brush it over with a solution of celluloid, this will, when dry, cause the print to become quite taut. Fabric prints coated with celluloid are suitable for coloring, the celluloid prevents colors from running, it also protects the fabric from decay. Coarse linen prints look well when stretched and coated with beeswax; they may be polished with a hard brush.

Prints on fabric may be trimmed and mounted the same as paper prints if they are first coated with a 5 per cent. solution of celluloid in acetone. Coating the prints with celluloid makes them buckle

BY A. F. BRADLEY

NEW YORK, N. Y.

on drying, but they are easily flattened by passing a hot iron over the back.

Short Exposure Required for Warm Tones

Generally speaking, platinotype papers which give warm tones require a shorter exposure than those made for cold black tones. Compared with normal cold bath black-tone papers, sepia requires about 25 per cent. less printing; ordinary black-tone papers, if developed in a hot developer, about 25 per cent. less printing; black Japine developed in a hot bath, 40 per cent. to 50 per cent. less printing. The addition of a minute quantity of a mercury salt to a developer also shortens the time required for printing. The addition of a large quantity of mercury has the opposite effect.

Reducing Over-printed Proofs.—A very much over-exposed print on gelatino-chloride paper, if fixed and washed without toning, may be bleached and redeveloped with a solution of hydroquinone containing a large proportion of bromide. The action of the developer can be stopped at any desired stage, and the image is then, after the usual washing, capable of being toned in the usual toning bath along with other prints produced in the ordinary way.

TO THINK OVER

COURTESY

TREATING a customer like a rich uncle, so that you may extract his coin, is not courtesy—that's foresight.

Offering a seat to the man who enters your office is not courtesy—that's duty.

Listening to the grumblings, growlings and groanings of a bore without remonstrating is not courtesy—that's forbearance.

Offering your companion a cigar when you light one yourself is not courtesy—you'd be ill-bred if you didn't.

Helping a pretty girl to cross the street, holding her umbrella, carrying her poodle—none of these is courtesy. The first two are a pleasure, and the last is politeness.

Courtesy is doing that which nothing under the sun makes you do but human kindness. Courtesy springs from the heart; if the mind prompts the action, there is a reason; if there be a reason, it is not courtesy, for courtesy has no reason. Courtesy is good will; and good will is prompted by a heart full of love to be kind.

Only the generous man is truly courteous—he gives freely, without a thought of receiving anything in return. The generous man has developed kindness to such an extent that he considers everyone as good as himself—and treats others not as he should like to be treated (for generosity asks nothing), but as he ought to be treated.—*Drew's Imprint.*

Do not worry about to-morrow and the day after for this day is yours to make the most of.

How do you deliver your work? It is an easy matter to please or displease a customer. And first impressions are always the most lasting.

When you have finished an order for a customer your first thought should be to deliver it for him in the way that shall most nearly bring it to his favorable consideration. Employ a neat wrapping-paper or enclosure; take as much pains in wrapping the package as a druggist would in wrapping a package of pills; make it neat; keep it clean; see that it leaves your shop and enters the customer's home neatly as though a jeweller were delivering diamonds.

A little care along this line is of inestimable service in pleasing a customer and making him feel satisfied with your work.

PORTRAIT

BY IMOGEN CUNNINGHAM

SEATTLE, WASH.

NUDE

BY IMOGEN CUNNINGHAM

SEATTLE, WASH.

ON THE RIVER BANK

BY IMOGEN CUNNINGHAM

SEATTLE, WASH.

THE VOICE OF THE WOOD

BY IMOGEN CUNNINGHAM

SEATTLE WASH.

PÉLLEAS AND MÉLISANDE

BY IMOGEN CUNNINGHAM

SEATTLE, WASH.

TRAFALGAR SQUARE

BY IMOGEN CUNNINGHAM

SEATTLE, WASH.

CHILD PORTRAITURE

BY R. H. SCHUMACHER

A CHILD'S face is often referred to as a "page blanche," as something only reflecting comfort or discomfort.

Every man has not the gift of being able to read a child's face and of being able to express by means of light, something of what he finds in it and what impresses him.

A photographer, especially a child-photographer, who by means of his work hopes to reach parents or other near relatives and friends, must be able to read childrens' faces. He must train himself and his artistic sense so that he is able to read pictures and he must give the study of art a permanent place in the profession. Thus, by his knowledge of the underlying principles of art he will be able to produce work showing the real meaning of truth and beauty.

In photography, as in art, beauty is truth and truth is beauty, and beauty and truth are the elements which alone can create satisfaction and give artistic feeling. This is logic.

Looking into a child's face, we are looking into one of the mysteries of life.

If you have not the gift of reading a child's face your work cannot fail to disappoint your clientele; and if you are not able to strike the right chord when approaching a child who is to be photographed you will, of necessity, violate the laws of logic, which are the underlying basis of truth and beauty in a photograph, and, therefore, your results cannot be satisfactory.

"Sunt pueri pueri puerila tracta." Children are children and must be treated as children. This is a proverb as old as Roman history which begins with the love of children. But this proverb does not reach back to the light-spending past of Hellenic liberty in which children were not treated as children.

If a photographer approaches a child and does not treat it seriously he will never obtain good results and all his trouble will have been in vain. The plate will not show anything of the character of the subject.

A photographer has the key-note to success in child portraiture when he has learned that he must be on equal terms, and know that children must be treated like grown up people.

To children their play is a very serious thing and there is many a deep thought behind the "pages blanches" of the little faces which a photographer should be able to reproduce in his pictures and to remind the parents of fascinating stories of their own childhood days and of their children's future, which is also the parent's future and perhaps the end of all.

Of course, one must not go too far in treating children like adults. Amita Buddhas says, "Children are nourished with bread and milk, grown up people with bread and wine."

One little realizes how often an unsatisfactory expression in a photograph is entirely due to the photographer's lack of skill and knowledge in the lighting of a face. Thus throwing it out of balance, producing deeper shadows and harder lights and in this way quite marring the original expression. In the pictures before me, however, this is not the case, there are both gay and sober moods portrayed. There is no lack of expression; no lack of balance. Expression is balance and balance, like logic, is artistic expression.

BY HALLIE WILSON
(WOMEN'S FEDERATION P.A. OF A.)

BY MAY L. SMITH
(WOMEN'S FEDERATION P.A. OF A.)

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(WOMEN'S FEDERATION P.A. OF A)

BY HETTIE SCHÜSSLER

BERLIN, GERMANY

A child photographer must have been trained specially for his work, just as a Kindergarten teacher must have been trained specially for her work, but this does not mean that either of them is not capable of doing other work.

Personally, if I had to select, among unknown photographers, where I thought I should probably get the best photograph of myself, I should in every case ask to see his selection of children's photos. If these were good then I should feel sure that the photographer would be capable of doing good adult work, too.

Every child's face has something very attractive, which touches me and which I love, for it turns work into pleasure. But not everybody is able to take the pictures of children, because one must know them thoroughly and love them; yes, one must love them dearly, for one has to be patient, very patient, and above all one must treat children like children to be able to produce work that possesses beauty and meaning. A recent article by Maurice Maeterlinck is splendid and every professional photographer should read it. A part of the paper reads as follows: "It is already many years since the sun revealed to us its power to portray objects and beings more quickly and more accurately than can pencil or crayon. It seemed to work only its own way and at its own pleasure. At first man was restricted to making permanent that which the impersonal

BY MAY L. SMITH

BINGHAMTON, N. Y.

and unsympathetic light had registered. He had not been permitted to imbue it with thought. But to-day it seems that thought has found a fissure through which to penetrate the mystery of this anonymous force, invade it, subjugate it, animate it, and compel it to say such things as have not yet been said in all the realm of chiroscuro, of grace, of beauty and of truth."

BY JACQUIER
LONDON, ENGLAND

BY MAY L. SMITH
BINGHAMTON, N. Y.

GOLD-TONING BATHS FOR TONES RICH IN COLOR

BY GEORGE SMEE

THE quality of the negative, whatever it may be, is known only to the photographer; as to the print, that is quite another matter. The quality in the print is known to the sitter as well as the photographer. It is this quality that counts with the customer, as well as the likeness.

How to get this quality in a gold-toned print devolves upon the printer, and should he not be acquainted with only one or two formulas for gold toning, perhaps the borax, or the bicarbonate of soda and gold, then he has not become acquainted with the best formulæ for gold toning.

In my own practice, the formulæ given here will produce prints of such rich colors, that leave nothing to be desired, especially when the negatives are vigorous, rich browns, semi-browns, and purple tones may be obtained at will, with no signs of double toning, such as is often seen in the borax and bicarbonate of soda and gold toners.

As soon as any person gets the hang of working these toners he would abandon all others. Every photographer knows

that if his work excels in richness of tone, such prints will command a better price than prints that are both dull and lifeless in color, and utterly devoid of brilliant rendering.

The bath is made up with hot water and used when cold.

Working formula for Tungrate toning bath:

Hot water	40 ozs.
Tungrate of soda	80 grains.
Chloride of gold	4 grains.

This toner can be used as soon as it has become cold, it is advisable to let it stand for a day or more before use.

Beautiful brown tones can be obtained with this toner, entirely free from double toning, which means two colors upon the same print. Purple tones are obtained by either continuing the toning, or by diluting the bath with half its bulk of water and adding two grains of chloride of gold only.

The temperature of this bath should not be lower than 60 degrees Fahrenheit. As the prints are toned, if the rich, brown color is to be retained, they must be placed into a bath made with half an ounce of common salt in one gallon of water. The fixing of these prints must be done in a plain, hypo-sulphite of soda bath only.

Fixing bath:

Hypo-sulphite of soda	4 ozs.
Water	24 "
Bicarbonate of soda	10 grains.

The bicarbonate will correct any acid there may be in the hypo; eight minutes in this bath will complete the fixing process. After this the prints must be well washed, and dried without forcing.

Another toning bath, that will give a very rich color, intermediate to the one already given, is made up as follows.

Uranium gold toner:

Water	48 ozs.
Nitrate of Uranium	10 grains.
Borax	180 "
Chloride of gold	5 "

To be made with warm water, cooled down and filtered.

The toning in either of these baths is fairly rapid, and the color uniform throughout; neither does double toning take place in this toner.

Prints that were made five years ago by me, and toned as here described, hold their own in color and other characteristics, the same as prints made to-day.

The washing and fixing being the same as for the tungrate of soda toner, the time need not exceed ten minutes in either case; usually the prints are completely fixed in eight minutes.

All that is needed after this is to make the prints well, and dry them without forcing.

LENS: TO CLEAN

THE lens should always be kept free from dust or other impurities. To clean it, spread upon a table a clean sheet of paper; take the lens apart, and with a camel-hair brush dust each of the combinations on both sides. If the surfaces of the lenses are very dirty and have lost their polish, make up the following: Nitric acid, 3 drops; alcohol, 1 ounce; distilled water, 2 ounces. Dip a tuft of filtering cotton in this solution, rub each side of the lens, then polish with an absolutely clean chamois. Clean the lens tube before replacing the lenses, each of which should be finally dusted with a camel-hair brush.

When the world looks dark put plenty of fresh air into your lungs and look into the sunshine.

Let others look upon you as dull and stupid if they will, but remember it is you and not they who passes final judgment upon yourself.

Down in the heart of most men is a tender chord it is worth while to find.

Success in any undertaking comes, not to the man who idly waits for his great opportunity, but to him who seizes whatever opportunity comes and makes it great.

Remember that the best is the cheapest.

HOW TO MAKE A STUDIO PAY

VI. CREDIT AND COLLECTIONS

BY FRANK FARRINGTON

THE photograph business is one of the hardest in which to do business on a cash basis. It is, perhaps, fair to say that the ordinary studio cannot develop a successful business if it insists upon spot cash with the order. To insist on cash when the pictures are delivered is different and if this rule is given prominent publicity and insisted upon, it can be enforced without material loss of trade.

The manager should remember that nobody's promise to pay is equal to the real money right in hand. No matter how much money a customer may have or how honest he may be, to trust a hundred patrons or a thousand every year is to incur a percentage of loss in spite of care. The question is whether or not doing a credit business attracts enough customers additional to pay the resultant loss.

While the photograph business is a business in which it is very difficult to get cash with the order, it is a business in which there is more likelihood of succeeding with a rule of cash when the goods are delivered than a store business of ordinary kinds.

It is, of course, necessary for the proprietor of the studio to use his own judgment in making his rules regarding the cash basis. In factory towns where there is a large element of patronage of an uncertain financial type, spot cash should be the rule and there need be little regret over the patrons it drives away for they will probably merely stick the other fellow.

In country towns where the inhabitants are nearly all well-to-do, owning their own homes, where the photographer is personally acquainted with nearly every one, it will pay to extend credit. I do not, however, believe in unlimited credit for any studio, or for any business. I believe that a purveyor to the customer should place a time limit on his credits just the same as the manufacturer or the jobber does.

Thirty days is long enough to give any one to pay for their pictures and any one who takes more, who is unable to pay within that time, unless it is some one with whom the photographer has a counterbalancing account, needs to be watched.

There should, of course, and in all cases be required, a deposit at the time of sitting. This should be sufficient to cover the expenses of the sitting and should be paid with the understanding that it is not to be refunded if the first lot of negatives fail to produce a satisfactory picture. Patrons who have a number of negatives made and like none of them if they have paid no deposit are very likely to forget to come back for a second trial, or to think it is a good deal of trouble and postpone until the matter is wholly forgotten.

Make it easy to ask for the deposit by posting very conspicuous and plainly-worded signs all around the studio calling attention to the fact that a deposit is required and that no exceptions are made to the rule. It is a simple matter in discussing the style of picture to be made, when asked the price of a certain kind to say, "Five dollars, with a cash deposit at sitting of two dollars." In quoting the price mention the cash deposit as a part of the quotation. This can be done easily and naturally and no one will take offense as it is obviously a part of the price.

The money that is taken in is what counts in business. The amount standing charged up on the books may count

as an asset, but it pays no bills and draws no interest. It is not of any assistance until you get it.

Make your terms thirty days and render a bill with the delivered pictures, and on that bill have it stated in unmistakable terms that the full payment is expected at the end of the month's time. There is no need to apoligize for wanting your money. The money due is yours. You are entitled to it. When you give a patron a bill payable in thirty days, see that when the thirty days is up, if the amount is not forthcoming, you go after it. To let these 30-days' bills run unnoticed after the time expires is to make trouble for yourself. It will nullify the effect of the principle and when you dun one customer at the end of the time and let another customer's bill go on, you fix up trouble for yourself.

If there is a local business people's association in your town and if it maintains a credit bureau, avail yourself of it. You ought to be a member of the organization anyway because you need it and it needs you. Get all the information you can in all the ways you can about the people who want you to give them credit.

If you do not want a customer on your books for more than he can pay, do not encourage him to over-buy in the first place. When a servant girl, whose wages are moderate at best, talks to you about buying pictures of a class worth $10 per dozen, don't let her take that kind. Do all in your power to keep your patrons' purchases within their proper limit and you will be much less likely to have on your books a lot of charges that are uncollectible.

The collecting of accounts begins with the selling of the goods. Good salesmanship does not consist in loading up the buyer with all he can be induced to buy. Rather, it consists in selling him what he needs and can well afford to pay for. This is even more particularly true in the matter of luxuries like photographs than in the case of such necessities as groceries and clothing.

Whatever your credit plan may be, do not fail to send out statements on the first of every month to every one on your books. If you let a person forget the indebtedness to you, the chance of getting the money will diminish very rapidly. The man who is constantly reminded of the fact that he owes you money is pretty apt to scrape up enough to pay the bill just to get it from off his mind. Even the man who never expected to pay does not like to be kept thinking of the debt all the time.

Look out for the people who pay up promptly the first time, and then a little less promptly each subsequent time. Look out for the people who protest of their honesty and their ability to pay. Good wine, it is said, needs no bush. Look out for the people who are newcomers in town with no established reputation as good pay. And look out for the rough-looking patron who may not appear to have a cent, but who is, nevertheless, gold lined. Don't offend this last man by insinuating that he has no money or credit. Find out something, all you can, about every patron before taking up the matter of credits.

Don't be afraid of talking about the matter of credits and accounts. A good many photographers are bashful about speaking of money. They hate to ask for it. Some are even so much this way that they will take a chance of losing an account rather than dun the debtor. This may be artistic temperament. It may be thoughtfulness of the feelings of others. It may have any one of a dozen fancy names, but, one thing it is not, and that is Business. Business is based on the honest transfer of money for value received. Nobody can succeed unless the money part of the transaction is given proper attention.

Your accounts will prosper better if you have each customer's bill always ready. This is not difficult, particularly where the items are few. By the use of what is called a ledgerette file, an indexed arrangement of bill heads on a board with an arch, every bill can be kept made out up to the last day and in shape to present at any time. This obviates any necessity for keeping a patron waiting who calls in ready to settle. I have lost accounts before now just be-

cause the bill was not ready when the customer came in to pay and no other chance ever came for collecting.

Another thing that sometimes delays settlement of an account foolishly is the lack of change. A patron wants to pay up but you cannot change a ten-dollar bill or a twenty-dollar bill and the opportunity is postponed at your own motion. Perhaps it does not come again.

When a patron postpones payment, always get a date set when payment will be made. Then BE ON HAND AT THAT DATE! If you cannot get the money when you go after it the first or any other subsequent time, get a promise and then be there ready to exact a keeping of the promise. When a man agrees to pay at a certain time and you are not ready to see him at that time, he will make the excuse that he was prepared to pay but you did not come around or that he called and you were not in.

If an account assumes any importance in dimensions, try to get a note when you cannot get the money. A note will be taken care of by many men when they will pay little attention to an overdue account.

Persistence is the keynote to successful collecting. And successful collecting is the means of keeping deadheads away. The photographer who has the reputation of expecting payment for his work and of getting it from even the most unwilling, will not be troubled much by the town deadbeats.

The cheaper classes of work such as, for instance, post card photographs, ought to be paid for in full at the time of the sitting. The gross amount of the sale is too small to take any chances of loss, and the cost of bookkeeping does not allow keeping track of a lot of single item accounts of less than a dollar each. It is well for the photographer to make a hard and fast rule that all photographs under a certain size, such a size perhaps as sells for $2.50 per dozen, are to be paid for in full when the sitting is made.

The posting of notices to this effect around the studio, particularly where they cannot be missed by the person sitting for the picture, will produce the right results, though they may produce a worried expression on some patrons' countenances.

The refusal of credit to an unworthy customer is necessary if loss is to be prevented. The man who cannot refuse to trust people he knows are poor pay is certain to have a large percentage of poor accounts. It is not necessary or wise to come right out in blunt fashion and say, "No, we can't trust you." There is no need of going that far in most instances. Use tact in the matter and say that it is your custom to ask a certain deposit, or that you do not make that particular kind of picture except for full payment with the order. Or say to the customer, "We have never had an account with you. We would have to have a reference from some one here with whom you run an account, of course, before extending credit." The patron who can give no references has no good excuse for asking credit. The patron who can give references is probably entitled to credit.

Don't talk to a customer about "trusting" him. Call it extending credit when you are refusing. It sounds better to him. Don't say anything that sounds like a distrust of his honesty, but talk about your end of the matter rather than his. *You* need the money. *You* cannot afford to carry accounts. *You* are the one favored by the cash and *YOU* regret your inability to extend credit. Draw the attention to your side of the proposition, and the customer is less likely to feel aggrieved on his side.

Success in a studio is dependent on the amount of money taken in, not on the amount of pictures sent out. It is better to do less business and get the money than to do a record business and wonder how you are going to collect enough the first of each month to pay the rent and stock bills.

Previous Articles, "The Man and the Location" (Oct.) "Buying and Arranging the Stock" (Nov.) "The Treatment of Customers" (Dec.) "System in the Studio" (Jan.) "How to know the Profits" (Feb'y)
Subject next month: "Developing the Side-Lines."

BY FLORENCE MAYNARD
PHILADELPHIA, PA.

THE PSYCHOLOGICAL MOMENT

BY W. L. F. WASTELL, F.R.P.S.

In the summer I stayed for a short time with my friend, Halksworth Wheeler, a photographer, at Folkestone, Kent. It was his busiest season, and he was hard at work in the studio from morning till night. He wished to make a couple of straightforward studio negatives of me. I was to be reading in one of them; writing in another, and smoking (as usual) in both.

We managed to locate a short interval of time between two appointments, and I promptly sat for him. In common, I believe, with most other photographers, I cordially dislike being photographed. But the sting was largely taken out of the ordeal by my being allowed to read. The result is shown in the first illustration, which I believe to be a natural and faithful representation of myself when enjoying my two favorite occupations simultaneously. He then took me in the act of writing. I do not show the result, although it is technically excellent, as it had an effect very similar to the reading pose. In both there seem something lacking. To search for that something would probably lead to the conclusion that the sitter is absorbed in something of no interest to the spectator. He is not in touch with the onlooker; he is detached, self-absorbed.

As soon as the second exposure was made I felt free again, and looked up

to exchange a remark with my friend Wheeler. That was precisely what he had been lying in wait for, although very wisely, he had not told me so. It was the psychological moment. The second illustration shows the result, and those who know me unanimously declare that it is the most characteristic portrait of me they have ever seen. It seems that the expression and attitude are precisely what they are very familiar with when I am talking with them. That is how they know me, how they remember me. In a word, it is a portrait that thoroughly pleases and appeals to them.

I should certainly not have struck this personal note but that it is a reminder of simple fact—that to secure a natural and lifelike portrait the operator must watch

for his opportunity. It opens up a wide subject. To begin with, the photographer must do his utmost to study the sitter while he (and, of course, she), is at his ease, and not wait until the actual attempt at posing is begun. Inevitably there will be a characteristic poise of the head, which will almost certainly vanish in the face of the lens; there will be cer-

tain expressions of the countenance that more often prevail than others.

In the vast majority of cases the sitter will be sufficiently self-conscious to become more or less non-natural when he is waiting an exposure. This feeling gradually lessens, so that it is as well not to be too hasty in making actual exposures. Every experienced operator knows that the later exposures of a series are almost always more satisfactory than the earlier ones, especially if the sitter is led to think that the real ordeal is over and that what is being done is merely informal and experimental.

It is a great advantage if the photographer can be free to stand as near the lens as possible, that he may see as nearly as may be the effect the lens sees, and has a second operator to place fresh plates in position and to make exposures at a given signal. By this means the photographer can engage the sitter in conversation, make him feel at ease, gradually coax him into being his everyday natural self, and all the time await the psychological moment.

Of course, there are difficulties; there always will be. The lighting that was

appropriate to one position may not suit an otherwise better one, or the head may be slightly moved forward or backward so that the planes of definition are wrong. Both of these difficulties have been largely overcome by the use of a reflex camera, easily and quickly movable, and rapidly focussed; but this, of course, entails the fixing of the attention on the mirror rather than directly on the sitter. Moreover, the reflex camera is a comparative rarity in the studio, for many reasons. It is quite possible, though, to arrange lighting and focussing for an exposure or two, and then to re-adjust matters for further experiments.

There is no doubt that many photographers are too economical with their plates. Unless there is good reason for supposing that a thoroughly satisfactory result has been secured it is wise policy to make further exposures. A portrait that really pleases the sitter means good business. Not only does it result in a heavy order for copies, but it is the finest advertisement possible. It means recommendation. Compared with this the cost of production of a few extra negatives in negligible.

This is by no means saying that the photographer should recklessly fire away his plates on the off-chance of getting a good negative from the multitude. Far from it. Every single exposure should be an earnest atttempt to get the right thing. But the right thing is elusive. The idea is that the photographer should make it his one aim to watch for, and seize when it comes, the one happy psychological moment.

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PROFITABLE SIDE-LINES—PRESS PHOTOGRAPHY

BY A. E. SWOYER

Of late years, with the growth of pictorial illustrations, not only in the great magazines, but in the humbler weeklies and newspapers as well, the production of the necessary photographs has become a profession in iteslf. Every public event, every ball game, every athletic contest is attended by a horde of photographers representing the metropolitan papers and the great syndicates which serve the vast number of rural sheets.

Naturally, competition with these special representatives would be impossible to the local man; lacking both their privileges upon the grounds and their certainty of sale afterwards, the attempt would prove but waste of both time and plates. Nevertheless, even in the smallest town events are apt to occur of which photographic records would prove saleable and yet which happen with such suddenness that the local man, with his knowledge of names, facts and conditions—to say nothing of his being right on the ground—has an immense advantage over the outsider who must be rushed to the scene from a distant point.

For this sort of work a "Nose for news"—that is, the ability to distinguish the important from the merely trivial—energy and the ability to hustle are essentials, as is also a knowledge of the market for your wares after you produce them. That these markets are broad goes without saying; there are some twenty-five thousand publications issued in the United States alone—some use photographs and pay for them, some use them and omit the latter formality, but surely among that number there is a field for your endeavor. Then, too, there are the magazines and technical journals—work for those alone might profitably fill a large amount of your spare time, but methods differ from those of straight newspaper work and deserve treatment in another article.

The first step, perhaps, in entering into the work is to establish connections with your probable market. If your town is small, it is probable that its newspapers buy everything but their local items already set up from some one of the syndicates, and their need of outside photographs will prove correspondingly small. On the other hand, this small need naturally keeps them from retaining a photographer as a paid member of their staff, and herein lies your advantage. If you know the editor personally, call on him and suggest that in case any good story should happen to break, you are prepared to handle the photographic end of it for him—he will probably know that in any case, but it does no harm to step in before a rival sees the opportunity. Then, when the opportunity comes—be it murder, railroad wreck, fire or flood—you will have a hurry-up call from his office, probably to accompany his reporter to the scene of action. This man will probably have his "story" mapped out, and will tell you what photographs he wishes taken—but use your own head, as well. There's a larger market than the one he offers, and you should make sufficient exposures to be able to take advantage of it.

For example, suppose the case in point is simply an anniversary in the life of some locally prominent man, and the photographs required are of the stereotyped ones of himself and family, house and grounds. You would be foolish to waste postage and plates in an endeavor to sell such to the metropolitan press.

But, suppose on the other hand, the affair is a large fire—prints could be

used by the papers of your nearest large city, postal cards would have a local sale and similar outlets would occur. Then, if you have taken the precaution to have your prints witnessed and dated, how about selling them to the owner or to the insurance adjuster? Such photographs are now admitted in court as competent evidence, and in case of dispute should be worth a snug sum to you. The same thing applies to railroad wrecks and similar accidents—a case is on record where an amateur who "snapped" such a scene secured something over one hundred dollars and an annual pass over the road simply because his negative showed a man (who claimed to have been totally disabled by the wreck) walking about immediately after the accident.

All of this may sound elementary; any up-to-date practitioner would think of these things naturally. But other opportunities of lesser magnitude—floods, wrecks and murders are often far between—may be cashed in, if you are prepared to take advantage of them. Thus, drop a letter to the papers of your nearest large city as well as to the office of the biggest metropolitan dailies and advise them that you are prepared to handle the photographic end of any news item which may develop in your neighborhood; they may not answer your letter, but, nevertheless, your name will be placed on file, and common sense should show that in case of instant importance, as well as in those whose magnitude would not warrant the sending of a special man, the editor will prefer to call upon you.

Of the smaller things, suppose a banquet of some prominent association is to be held in your neighborhood; and that there is keen competition among the photographers as to who is to have the honor—and emoluments—of officially recording the occasion. Drop a line to one of the city editors inquiring as to whether he wants the banquet "covered"—if he authorizes you to go ahead, such authority will not only secure you entry, but, ten chances to one, you will win out over the others as official photographer. Rather than submit to posing for exposures by a number of photographers, the banquet committee will favor having you make the official photograph and your newspaper cut at the same time. There's expenses and a good price for the negative in it for you from the paper, besides the profits in the banquet photograph—on top of that your appointment as "official" photographer by the committee will give you prestige with the editor, who is not apt to suspect that in reality he secured the appointment for you.

Then, too, practically every paper keeps a "morgue" or filing cabinet in which are stored clippings and other data concerning prominent men; you should, as much as possible, follow the same custom. Plain John Smith may today be a rather insignificant object of human architecture, but suppose some distant relative wills him a few thousand dollars—his photograph and a hundred words or so on, say, "Village Blacksmith Become Croesus," immediately becomes of value. You never can tell where the lightning is going to strike, but it's up to you to be there before the thunder dies away when it does strike.

Press photography along the lines so far mentioned requires no special apparatus; if you are going into it as an important side-line of your regular business, a camera of the reflecting type will prove, as in many other classes of photography, a decided asset. Outside of automobile races, athletic events and similar subjects, however, the ordinary camera will serve, while in many cases a small, inoffensive-looking pocket instrument fitted with fast lens and shutter to correspond will enable you to make exposures from which the more conspicuous reflecting camera would bar you.

Outside of apparatus, though, a few points must be considered. Newspapers are printed on flimsy, soft paper, so that photographs used in them must be reproduced through a coarse screen; the result is that all fine detail in the original is lost, and the cut appears rather a matter of blotches of black and white

than a picture made up of lines and half-tones. The photographer aiming at newspaper publication should therefore avoid all landscape effects; his principal objects should be upon as large a scale as possible, few in number and with no attempt to retain in the negative either half-tone or detail. In short, the more contrasty the print the better the newspaper man will like it—and, as he is the chap you have to please, develop for clear-glass shadows and dense highlights, finishing your prints in the same proportion.

Another important element in press work— I should have said the most important—is timeliness; newspapers are affairs of the moment, and the railroad wreck which is a headliner to-day is ancient history to-morrow. For this reason, a photograph of such a catastrophe might be worth fifty dollars if it reached the editor a few hours after the actual wreck, and yet wouldn't bring fifty cents if it got there a few mails later. Therefore, after you have made your exposures don't waste time on the ground, and don't go home expecting to develop the negative in the evening, let it dry all night and send your prints off the next day—if you try anything of the sort, some other fellow with perhaps a negative not one-fourth as good as yours will "beat you to it"; timeliness in presswork counts for far more than quality, and the first prints to reach an editor will be the ones that he will buy.

Make your exposures, get a few interesting details and head for your dark room as fast as you know how. Rush your exposures into a strong developer —preferably containing some hardening agent, as formalin—don't overdevelop, and don't stop to fix. Either print at once from the wet negative, or put it in the enlarging lantern and make a bromide enlargement; dry the print between blotters and GET IT OFF! Send prints to a half dozen papers, if you want to, but send them and send them quick. Then, and then only, you can sit back and attend to the little details of making the negative permanent.

If you've stumbled on to something of unusual importance, better wire the editor that the prints are coming—if your name is on file in his office, the expense of the telegram will be refunded to you. He may even come right back at you to wire an account of the event; if he does do not be backward—simply send in a concise description with accurate names and figures, if possible, and boiled down to the last scrap. His "rewrite man" will put on all the literary polish necessary, so don't be afraid to tackle the job; just be brief; be accurate and be prompt—then you will be dear in the heart of that editor, and your assignments and resulting checks be correspondingly fat and frequent. That, perhaps, is a little bit aside from straight press "photography" and partakes of reportorial work—but the successful photographer, you know, has to be many men in one; at any rate, he should thoroughly appreciate any turn that results in profits.

CLEANING GREASY BOTTLES

WASH with benzine or permanganate of potassium, to which has been added some hydrochloric acid.

Bottles that have contained resinous substances, wash with potash or soda and rinse with alcohol. Bottles that have contained essences, wash with sulphuric acid, then with water.

CLEARING STAINED NEGATIVES

DISSOLVE ⅛ ounce of pulverized alum in 20 ounces of water and add 1 dram of sulphuric acid. Immerse the stained plate in this solution for a few minutes; remove plate, wash, and then set in the rack to dry.

If you would succeed you must plod and plod all the time. You cannot stake future efforts on past undertakings.

TRANSLATIONS AND ABSTRACTS

BY E. J. WALL, F.R.P.S.

The Drying of Oil Prints.

Every worker in the oil and bromoil processes knows how long it takes for the greasy vehicle of the pigments to dry and several suggestions have been made to obviate this trouble. M. Lemaire suggests that the paper should be allowed to thoroughly dry and then immersed in a mixture of

Alcohol	100 parts
Benzole	50 parts

for half an hour; the dish being covered meanwhile with a sheet of glass to prevent too rapid evaporation. The solution may be repeatedly used if filtered.—*Phot. Revue,* 1913, p. 193.

Petrol, gasoline and benzine have also been suggested, but all suffer from the defect that their vapors are extremely inflammable. While more expensive dichlorethylene or tetrachlorethane would be equally, if not more efficacious and are non-inflammable. Tetrachlorethane, or, as it is sometimes called, acetylene tetrachloride, is not very volatile and would therefore probably be cheaper in the end.

Toning by Redevelopment.

M. Aujas recommends the following methods for obtaining warm tones on developed prints. The print is chlorised in

Potassium bichromate	5 g.	35 grains
Hydrochloric acid	20 ccs.	140 minims
Water	1000 ccs.	16 fld. ozs.

then well wash; or it can be bromised in

Potassium ferricyanide	50 g.	350 grains
Potassium bromide	20 g.	140 grains
Water	1000 ccs	16 fld. ozs.

Wash as usual. In both cases the prints should be exposed to daylight and then developed with one of the following developers.

Sodium sulphite anhydrous	75 g.	525 grains
Sodium carbonate anhydrous	100 g.	700 grains
Potassium bromide	2 g.	14 grains
Developing agent	10 g.	70 grains
Water	1000 ccs	16 fld. ozs.

From 5 to 30 parts of this should be diluted to 100 parts. Hydroquinone gives from red chalk to warm black, pyro reddish-brown to black, metoquinone brownish sepia to black and metol bronze-green to black. By using the following still warmer tones are obtained.

Ammonia	200 ccs.	1400 minims
Sodium sulphite anhyd.	75 ccs.	515 grains
Potassium bromide	2 g.	14 grains
Developing agent	10 g.	70 grains
Water	1000 ccs.	16 fld. ozs.

With this one can start by diluting 2 parts to 100.—*Phot. Revue,* 1913, p. 198.

The idea of obtaining warm tones by chlorising a developed image and redeveloping was first suggested by Eder in 1881, and has been repeatedly revived since then, without recognition of Eder's work.

Brown Tones Direct.

Prospiech recommends the use of the following developer for obtaining warm tones direct on bromide and development papers:—

Pyrocatechin 10% sol.	56 ccs.	392 minims
Potass. carbonate 10% sol.	280 ccs.	3⅔ fld. ozs.
Distilled water to	1000 ccs.	16 fld. ozs

A good, brown black color is obtained. A warmer brown is obtained by bleaching the fixed and washed prints in neutral potassium ferricyanide solution, washing and redeveloping in daylight with the above solution. —*Das Ateler d. Phot.,* 1913, p. 141.

The color is due entirely to the deposition of the oxidation product of pyrocatechin in situ with the silver. A similar process was suggested by Liesegang in 1888.

Another Method of Obtaining Brown Tones.

An extremely exhaustive and important paper has just been published by Miss Woolley and Chas W. Gamble of the Photographic Department of the School of Technology of Manchester, England, in which they give the result of two years' research on the toning of silver images by a method originally suggested by Neugschwender in 1910. The developed print after fixing and washing is bleached in a solution of ferricyanide then well washed and treated with chloride of tin, washed and treated with an alkaline hydroxide, such as caustic ammonia, potash or soda, fine, warm brown images being the result. The practical outcome of the research seems to be that bleaching a print, and it seems immaterial whether it is developed or printed out, in an ordinary ferricyanide and alkaline bromide bleach, then treating the

image with stannous chloride or sulphate followed by an alkali, particularly caustic potash, gives a fine, warm brown tone.

The redeveloping solutions may be combined in one by precipitating 5 grammes of stannous chloride with sodium carbonate, washing the precipitated hydroxide and dissolving it by the cautious addition of caustic potash solution and making the total bulk up to 500 ccs. The potassium stannite solution thus made keeps well and actually redevelops the image with a certain amount of intensification.—*B. J.*, 1913, p. 987.

Colored Images Direct

Drs. Fischer and Sigeist describe in general terms the method adopted by the Neue Photographische Gesellschaft, of Berlin, in the production of Chromal, a new paper that has recently been placed on the market. Paramidophenol and paraphenylendiamine will, when oxidized in the presence of phenols, aromatic amines and compounds containing an acid methylene linking, give rise to certain dyes or coloring matters of great range and which are insoluble in water. Apparently the above two substances are incorporated in the emulsion, and on exposure and development with certain developers the various dyestuffs are precipitated in situ with the metallic silver; this last can be dissolved out by a neutral reducer, such as hypo and ferricyanide, leaving the pure dye image behind. The dyes formed are not quite permanent, but will withstand exposure to diffused daylight for a long time without showing any appreciable change, especially if the silver image is not dissolved.—*Photo-Woche*, 1914, Jan. 17, p. 8.

In 1906 Homolka utilized indoxyl and thioindoxyl as developers and these are oxidized to indigo and thioindigo, respectively, which were deposited in situ. The formation of dye images was also utilized by Lumière in the manganese printing processes.

An Abbreviated Bromoil Process

Dr. Seeman suggests the following method of working the bromoil process: Develope as usual, wash well and then immerse the print in

Potass. bromide 1 : 5 sol.	.....	3 parts.
Cupric sulphate 1 : 5 "	.....	3 "
Potass. bichromate 1 : 100 sol.	.....	1 part.

As soon as the image disappears, which only takes about 30 seconds, wash slightly and fix for 10 minutes in a 10% solution of hypo, then well wash and proceed to ink up in the usual way. He further states that Blum, one of the largest enlarging houses in Berlin, adds from 2 to 3% of ammonia to the soaking bath, prior to inking, and thus obtains the same degree of swelling at 77 deg. F. as is usually given by a temperature of 154. Seeman uses also a roller covered with plush for inking.—*Phot. Rund.*, 1914, p. 7.

The True-to-Scale Process

Under the name of Fulgurdruck a secret process of reproducing plans, etc., is being exploited in Germany, which is apparently nothing more than Fotoldruck, described by Tellkampf & Traube in 1905 and since worked extensively in England under the above title.—*Phot. Rund.*, 1914, p. 11.

Fishenden (*B. J.*, 1910, p. 44), describes this process and calls it the Graph process, obviously because of its utilizing the principle of the old hektograph pad. A solution is prepared as follows:—

Glue or gelatine	40-50	parts.
Phenol	2	"
Glycerine	4	"
Water	100	"

To this is added sufficient ferrous sulphate or ammonio-sulphate of iron to give a good printing surface. This mixture should be poured into a metal flat tray and allowed to thoroughly set. An ordinary blue print is immediately after exposure and without wetting squeegeed on to the surface and left in contact for not more than one minute and then stripped. On rolling up with litho ink, this takes only on those parts which were in contact with the unexposed ferric salts of the blue print, and a pull can be taken in the usual way. With a little practice at least ten pulls can be taken.

The Speed of a Process Plate

Dr. Mees points out that the Hurter & Driffield method cannot be applied to the testing of the process plates, if they are to be used for the reproduction of black and white work, and that of two plates of identically the same speed, that one is actually the faster which will give the greater contrast in the shorter time—*Penrose's Annual*, 1914, p. 105.

The Mercuric Iodide Intensifier

A. E. Biermann gives a modification of this old intensifier, as specially valuable for halftone negatives on dry plates and general work:—

A.		
Bichloride of mercury	10 g.	1 oz.
Water	300 ccs.	30 ozs.
B.		
Potass. iodide	30 g.	3 ozs.
Water	100 ccs.	30 "
C.		
Sodium acetate	25 g.	2½ ozs.
Hypo	15 "	1½ "
Water	200 ccs.	20 fld. ozs.

Add sufficient and no more, of B to A to dissolve the percipitate first formed and then add C. Keep in the dark and dilute with an equal part of water before use. Rinse the negative after removal from the fixing bath, apply the intensifier, and if the negative is to be kept apply a developer.—*Penrose's Annual*, 1914, p. 79.

THIS is Edwards' original intensifier with the addition of sodium acetate, the purpose of which is not quite clear. Lumiére, in 1900, suggested the use of sulphite instead of hypo and the solution keeps better and intensification is more under control. The only advantage of this intensifier is that the negative need not be freed from hypo; but, if the plates are not redeveloped they very soon turn bright yellow.

MATT GLASS SUBSTITUTE FOR STUDIO WINDOWS

M. suggests cutting tissue paper to the exact size of the glass, soaking in linseed oil and then squeegeeing into contact with the glass and removing the excess oil with a rag. This sticks so fast, when thoroughly dry that it can only be removed with caustic potash and a knife. It can be wiped with a wet rag to remove dust.—*Das Atelier d. Phot.*, 1914, p. 11.

The disadvantage of this is that the oil slowly oxidizes to a resin, that is distinctly yellow, so that exposure would be prolonged unless color-sensitive plates were used.

BROMOILS FOR PHOTOLITHOGRAPHY

PROFESSOR NAMIAS suggests that bromoil prints of line subjects may be used for photolitho transfers and points out that it is sometimes difficult to preserve the fine lines and recommends that after bleaching in the usual bath the print should be well washed and redeveloped in daylight. This makes the lines more insoluble and less likely to be lost; this bleaching and redevelopment may be repeated as often as thought necessary, provided care is taken to wash out all traces of the developer. The bleached print should be fixed, well washed, dried and then soaked in water for at least 15 minutes. The ink should be ordinary litho transfer ink thinned down with a few drops of varnish, turpentine and benzole. The usual *"pied-de-bieche"* brushes should be used and worked over the lines and the print left for a few minutes for the solvents to evaporate. Then the surface, where there should be no ink, is polished with a tuft of cotton wool well wetted with water. The transfer to zinc or stone is as usual.—*Il Progress. Foto.*, 1913, p. 198.

BROWN TONES BY REDEVELOPMENT

Namias suggests bleaching lantern slides in

Cupric sulphate	10g.	70 grains
Salt	20	140
Water	1000 ccs.	16 fld. ozs.

Then rinsing and redeveloping with

Pyrocatechin 2% sol.	1 part
Potass. carbonate 10% sol.	1 part
Water	6 parts

Various tones are obtained ranging from red to black according to the length of redevelopment. A still wider range is obtained by using the following:

A

Metol	10 g.	70 grains
Sodium carbonate	40	280
Sodium sulphite	50	350
Hydroquinone	5	35
Water	1000 ccs.	16 fld. ozs.

B

Ammonium carbonate	100 g.	700 grains
Ammonium bromide	100 g.	700 grains
Water	1000 ccs.	16 fld. ozs.

For use mix 2 parts of A, one of B, and 3 parts of water. By doubling the quantity of water any tone from yellow to violet is obtainable.—*Il Progress Foto*, 1914, p. 11.

Eder in 1881 suggested bleaching positives and redevelopment for warm tones. Apparently Namias considers that it is the formation of silver chloride alone that gives the color, but the bleached image consists of a mixture of cuprous and silver chloride, and it seems only rational to assume that the copper must play some part and there ought to be intensification as well.

THE PERSULPHATE REDUCER

Blake-Smith recommends the following as acting evenly on all tones of the negative and without stains:

Ammonium persulphate	½ g.	8-16 grains
Sulphuric acid	6 ccs.	21 minims
Water	1000 ccs.	16 fld. ozs.

B. J., 1914, p. 34.

THE MIRROR STUDIO

Streissler describes the mirror studio designed by Iser, which whilst not new may be novel to some. It practically consists of an ordinary studio, at one end of which is a sheet of plate glass, and behind this a room which is covered entirely with black paint or cloth; in this the operator stands with the camera, whilst the sitter is in the ordinary part of the studio and can see nothing of the operator or the camera, whilst the latter can see the sitter in the usual way. It is stated that more natural expressions and poses are obtained in this way.—*Phot. Wochenbl.*, 1914, p. 9.

SULPHITE AND HYDROQUINONE

Mention has already been made of Pinnow's researches on the preservation of hydroquinone and sulphite solutions (see p. 83 Feb. issue), but he has now issued a more extended paper in which he gives the various equations, showing the chemical reactions that probably occur in the spoiling of a stock solution. This spoiling he ascribes to the presence of copper oxide, which he states is always present in sodium sulphite and distilled water, unless specially purified. On oxidation hydroquinone forms a peroxide $C_6H_4(OH_2O_2)$, and this reacts with sulphite, giving hydroquinone-mono-sulphonate of soda and sodium sulphate. Quinone and the disulphonate salt are later formed, and these are not developers. —*Phot. Rund.*, 1914, p. 19.

EDITOR'S TABLE

IT is gratifying to note the increasing number of women engaged in professional photography and their increasing success. Their work in the profession is, in the nature of things, bound to help toward its elevation in the public eye, and we observe with pleasure that they generally work in special lines and demand good prices..

Of the American women photographers who have made good, Imogen Cunningham of Seattle, Wash., is one of the most successful. We take special pleasure in showing our readers this month the beautiful examples of her work. Next month's issue of WILSON'S will be a "special Alice Boughton number," giving many exquisite reproductions of her most distinctive prints. And later will follow other notable articles, fully illustrated, of successful women photographers whose work is pre-eminent. The Women's Federation under the leadership of Miss Loehr, is doing much to further stimulate and promote the highest and best interests of photography and deserves the recognition and co-operation of every woman photographer in this country, who desires photography practiced as a fine art.

HAVING A SETTLED POLICY

THE varying conditions under which a photographic studio must flourish or decay, the widely differing demands of different communities and the tremendous detail incident to the carrying on of a successful photographic enterprise render system and policy particularly important in this field of affairs.

The photographer about to open a new studio should, and must, formulate a definite plan of action before he can successfully begin his work. He must decide whether his scheme shall be worked out upon the lines of large output and low prices or upon smaller production and proportionate increase in value. Until this has been done he cannot even lay out his dark-room, printing-room, or appointments. Once the policy is adopted it should be worked out to completion without any considerable change in the plan of operations until it has had a chance to demonstrate its merit or demerit.

The man who goes into photography with a wavering purpose, waiting for events to direct him, is likely to continue in a state of uncertainty indefinitely. Concentration of thought and energy can only be effective when the business is built upon a well-defined plan. The so-called art tendency in photography should be carefully considered. The photographer should firmly settle in his own mind at the outset what his own attitude is to be toward this ever-present question.

Is he to follow the dictates of the new school and endeavor to educate his patrons to a higher undersanding and appreciation of art, or is he to cater to the present demands of his community, striving to produce work that is honest and of good value, with the

idea of constantly improving it both technically and artistically? In doing this he may gradually build among his patrons a finer taste and a demand for better work in a quiet and natural manner.

The statement cannot, we think, be controverted that the desire of the ordinary person who goes to the photographic studio for a photograph is, first of all, to obtain a likeness. This likeness, particularly in the smaller communities throughout the country, can hardly be considered, even under the best treatment, a work of art.

Let the principles of art be applied to each and every pose so far as possible. The average photographer, however, cannot afford to forget that he is in the business for profit. He must give his customer that which the customer requires if he will succeed. In catering to the popular taste the photographer may, while apparently following the demands of his patrons, lead them step by step into an appreciation of more artistic work which, in its turn, will bring him better prices. This result may more easily be obtained by apparently following rather than ostentatiously leading his public.

To successfuly work out a policy of this kind the photographer must keep himself constantly in touch with all that goes on in the photographic world, thus improving the quality of his output, keep posted upon the novelties as they appear in the market, and be ever ready to arrive at a quick and accurate estimate of the commercial value of this or that new thing among his own patrons. Once it is determined that a novelty is fitted to the demands of his own trade, he should not hesitate to adopt it. He should make it known at once in no uncertain tone throughout the entire section to which he caters. There is little or no profit to be obtained by the introduction of a new method or printing medium if it is known only to a small circle of people. If such a novelty is worth being introduced, it should be widely and strongly advertised. An innovation quickly loses its novelty. Its best results are always to be reaped while it is still new.

The progressive photographer, who is known and recognized as such, soon finds himself surrounded by a circle of patrons, larger or smaller as the case may be, whose support can be made very valuable if catered to on the right lines. Many of these people like to be considered connoisseurs. They feel complimented by being asked for an expression of opinion. The photographer with a policy takes advantage of all such means as this to extend his prestige.

If the policy of a photographic studio is to meet and satisfy the demands of its patrons those demands must first be clearly understood before they can be catered to successfully. Meantime, there will be found ample opportunity for the development of any special line of more artistic work.

The settled policy, once adopted, should be made the central point around which every business transaction groups. If the policy is built upon the lines laid down in its definition, the wisdom, prudence and shrewdness of its framer must become apparent in its results when put into operation.

PHOTOGRAPHY IN GREAT BRITAIN

A Review of the Month from our own Correspondent

LONDON, *February*, 1914.

Like the weather in the second month of the year upon this island, photography in all its phases has about recovered its normal balance. The month of January, like Christmas, time, is scarcely the period to take statistics, on account of the many exhibitions being in progress in various counties and amongst suburban societies, to the extent, I would estimate at a rough hazard, of between forty and fifty.

These are, of course, the regular or annual exhibitions of accredited photographic societies and do not include the hundreds of photographic classes, competitions and exhibitions held in conjunction with every social and scientific organization, however parochial, that has the slightest pretension of modernity.

The interest and encouragement offered by modest village institutes, recreation clubs, etc., all with no professed photographic status, forms part of the very life-blood of the art and industry, yet, strange to say, their importance at the foot of the ladder is scarcely,

if ever, realized, and, never admitted. Quite seventy-five percent., possibly more, but not less, of the organizations I refer to, promote at their annual conversazione, eisteddfod, exhibition, or whatever it may be termed, some class for amateur photographic work. The examples of work sent are often good, but more often open to radical improvement, but the incentive to better efforts is there and the hyper-sensitive beginner is spurred on to better work by kindly critics, and not, as is frequently the case at photographic society shows, nipped in the bud through the indiscretions of a caustic commentator of riper experience. It can only be for the general welfare of the industry to foster and encourage the new beginner, even if it means the toleration of his oft-times imitative attempts at the higher camera art; still again, it is not realized by every society, for I notice that in a Northern township a photographic club protested against a local Sunday school holding an exhibition contemporary to its own. When a photographic society seeks to prevent a lay body from encroaching upon its sacred preserves because it caters a little for the new beginnner, it appears to me too much like killing the goose that lays the golden egg. Obviously a lay organization can only hope to retain an amateur for a limited period, he seeks higher examples and eventually joins the nearest photographic society.

Motion Pictures in the Studio

Much has appeared in WILSON'S of late respecting motion pictures as a side line for the professional; their advantages and disadvantages, costs and profits; and while the production of "movies" on a really professional scale is, and always will be, a special industry involving special equipment and experience, there seems to be some opening in the studio for moving portraits. Probably Mr. K. de Proszyuski had this in his mind when he demonstrated a new apparatus for this purpose before the Royal Photographic Society a few days ago. His camera in appearance resembled a cheap magazine plate instrument and is fed by a broad band of film. By mechanism adapted to the particular requirements of the camera, this broad band of film is exposed in narrow strips of about one-quarter the standard size, and, instead of being exposed in a continuous band is taken alternately, vertically and horizontally. The result, as demonstrated by the inventor, is that as many exposures can be concentrated upon three feet of his Special Film as can be taken upon 250 feet of ordinary film, while the cost is about 75 cents against $12. The camera, with a slight adjustment of the lens and back is converted into a projector for the finished film and the latter, taking as a criterion a moving picture of six or seven minutes' duration, is developed as an ordinary photographic negative in a dish, or, possibly, in a Kodak tank machine.

New Fellows of the R. P. S.

The Committee of the Royal Photographic Society, out of eight applications for the Fellowship of the Society, have decided to grant the following: A. K. Dannatt, J. Youatt H. Cecil, A. G. Buckham, C. J. Hughes, H. Wheeler, and last, but not least significant, Alvin L Coburn.

A Tip for Night Photographers

Mr J. Williamson, of Cockermouth, discoursed much valuable information for night photographers in a lecture I attended at Warrington a few days ago. Considering that some of Mr. Williamson's most successful works are nocturnal street scenes in and about Broadway, New York, it should be of particular interest to city workers. The lecturer's maxim as regards exposure, is length and plenty of it. Some of his exposures took an hour and more to make and two to three hours to develop. Mr. Williamson's work was praised very highly a year ago in London and, to his success he attributes extraordinary care and patience in the developing process. Perfectly pure chemicals and distilled water at a low temperature, thereby prolonging development, are the chief factors that go to the making of the artistic night photograph.

A New Color Process

"Raydex," a new process for the production of color photographs upon a paper base was demonstrated before the Society of Color Photographers a fortnight ago. The first stage of the invention consists in the making of three bromide prints from three panchromatic plates exposed through green, red and blue filters. Upon these, while in a wet state, are imposed specially-prepared sheets, colored red, blue and yellow. That is to say, the first bromide print is pressed into contact with the red sheet; the second with the blue, and the third with the yellow. They are left in this state for about half an hour, then separated, with the gelatine image of the picture adhering to its colored support. All that now remains is to superimpose upon a transparent support in correct register the three colored images and this is done under water. A number of finished specimens exhibited after the demonstration excited the admiration of all present, and, with a few possible modifications in procedure, there seems to be a good future for the new "Raydex" system.

Brush Development

Mr. H. P. Harpur, of the Croydon Camera Club, has discovered new possibilities in the brush as a means of developing bromide prints and enlargements. Mr. Harpur first saturates the paper in cold water and laid film upwards upon a sheet of glass, to which it is held in position with a number of clips. After the removal of the surface moisture the exposure is made—in the case of an enlargement through the lantern and, in the case of a contact print, by pressing the wet bromide paper into gentle contact with the negative—taking care

to under rather than over expose. The developer advised is amidol applied with a camel's hair mop and one ounce of solution proved ample for the treatment of a fair-sized enlargement. What appears to some workers as a disadvantage or a nuisance in this method is the division of the exposure. After the image had begun to manifest its existence upon the paper it was replaced in position upon the enlarging easel and exposed again for a few more seconds This, Mr. Harpur contends allows infinitely more control and produces a pleasing diffused effect.

The R. P. S. Progress Medal

At a recent meeting of the Royal Photographic Society, Mr. Chapman Jones announced that the progress medal given yearly had been won for 1913 by Mr. W. B. Ferguson for original researches and experiments in plate speed testing and sensitometric work. Following the announcement, Mr. F. T. Hollyer briefly discoursed upon three-color collotype work and held that one of the most important points was the efficacy of the drying cupboard. Air-currents and vibrations were often the sources of uneven waves upon the metal plate and, in the majority of cases, he asserted, were due to an improperly constructed cupboard.

Woman as a Professional Photographer

Towards the end of last month two or three of the leading daily newspapers in Liverpool and Manchester waged a controversy over the possibilities of photography as a profession for women. The discussion appears to have been precipitated from the anonymous admission of a well-known woman society photographer who says that she commenced her photographic career in London with a capital of £50. Within two months she declares she made more than her outlay in profit, while before the year ended, she had acquired central studios and offices in the heart of the West End of London. A male photographer of repute also spoke highly of woman's influence and success in the photographic sphere. His experiment, made a few years ago, was to take a woman amateur photographer into his studio and assign to her treatment of all female sitters and children. The venture proved successful, due, he admits, to the fact being advertised discretely. It is from such controversies as these that a useful, and often profitable lesson may be learned, by the most self-satisfied professional. Particularly in small towns and suburban districts, where the suppression of unnecessary expenditure is the prime factor in the photographer's business, further patronage from the fair sex could doubtlessly be secured by the introduction to the studio of a woman operator. The position of the woman in the minor post of photography in England is fairly secure for many businesses of importance depend entirely for their retouching, working-up, tinting, and the more delicate operations upon the sensitive hand of the woman.

A Novelty in Lantern Plates

Under the name of the "Vandyke," a well-known London house has just issued a novelty in lantern plates. The claim for them is that by simple development they will produce any desired shade of a warm tone from a glaring terra cotta to rich sepia. From specimens I have seen, the claim is well substantiated. Another salient feature being the employment of any good developer. For lantern lecturers it is fairly safe to assume that the new slide will be come indespensable.

Enlarging Hints

It is a well-known fact that condensers in enlarging lanterns expand and contract in their mounts if subjected to great heat. The amateur may not be worried to a great degree with condensers that are constantly cracking, but the professional worker who employs powerful illuminants knows only too well the inconvenience and annoyance created by a condenser cracking at the critical moment. It is a complaint for which there seems to be no prescribed cure. Often the cause is through a tongue of flame reaching the glass, if the illuminant be gas, oil, or limelight; or, in the case of electricity, through too powerful a current being employed. Faulty ventilation of the lantern is another common cause of breakages, and these are practically all due to the rapid expansion of the glass in its mount. A simple and very effective expedient is to leave the condenser loose in its mount. So loose that it will rattle perceptibly when the enlarger is shaken. The narrow air space around the edge will permit of the passage to a slight degree of the hot air and also allow for a reasonable amount of expansion of the glass.

I have often wondered, if in his rush to finish off rapidly a number of enlargements, the professional ever realizes the utility of a piece of common india-rubber. The manner in which some people fumble about with charcoal, stumps, and putty rubber in working-up prints, is often a striking allegory of the adage: "More haste less speed." All ordinary abrasion marks, smudges of charcoal or dirt, and blots of ink can be removed completely and quickly by gentle friction with india-rubber. The economy in patience alone is worth the experiment.

Forthcoming Exhibitions

For the guidance of American photographers I give this list of forthcoming exhibitions in this country. It is by no means comprehensive or even representative.

Society of Color Photographers, May 8th to 10th, at the Royal Horticultural Hall, London, S. W. Secretary, A. E. Morton, 97 Chesterfield Gardens, Harringay, London, N.

South London International, March 21st to April 18th. Secretary J. H. Perkins, 103 Bushey Hill Road, Camberwell, London, S. E.

Royal Photographic Society, August 24th to October 3rd. Entries close July 31st. Secretary J. McIntosh, 35 Russell Square, London, W. C.

J. B. SUTCLIFFE.

NOTES AND NEWS

Hypo-Alum Toning.

"Practicus" gives the following hints as to the use of the above. Dissolve 1½ pounds of hypo in 40 ounces of water and when thoroughly dissolved add 3 ounces of powdered alum, stir till dissolved; bring to the boil and allow to simmer for 15 minutes. Great care must be taken not to use an iron vessel and if an enamelled one is used, there should be no chips out of it, as contact with iron immediately spoils the bath. Before use add 20 grains silver nitrate in solution and 2 ounces of ordinary white crystalized sugar. Heat to 120 degrees Fahr. and commence to tone by trying a print or two, if satisfactory in color, the whole batch may be toned, but the prints must be put in separately. If the tone is too warm raise the temperature to 160 or 180 degrees Fahr., or reduce the strength of the bath by adding one-fourth more water.—*B. J.*, 1914, p. 20.

As a man thinks, so is he: times are good or bad as one makes them: good business depends upon optimism, hustle, and an absence of gloom. All around us, for those who choose to notice, are evidences of prosperity — record-breaking crops, high-water marks in production. Of course, there are some men who refuse absolutely to see good.

Hand the hook to the Anvil Chorus, and prepare to go after your particular share. The live man is going to get it, and let his competitors grumble.—*Little 'Cos.'*

P. A. of A. Establishes an Employment Bureau

Since the photographers often find it difficult to obtain reliable help, the Photographers' Association of America has established an employment bureau, which shall be for the free use of all members of the Association.

The Secretary will keep on file a list of those seeking positions and upon inquiry will be glad to put any photographer in touch with the kind of help he needs.

Experienced help desiring a change in position will do well to send ther names together with a list of their qualificatons to the Secretary, Jno. I. Hoffman, Bucyrus, Ohio.

Ansco Company Offers $5,000.00 for Photographs of America's Lovely Women

This is the first announcement of a contest of highest interest to both amateur and professional photographers. It not only affords the opportunity to win a substantial cash prize, but to gain considerable publicity by having your photographs exhibited to admiring audiences, composed of thousands of people from all parts of the country. The purpose of this contest is to secure portraits of fifty of America's loveliest women to be exhibited by Ansco Company at the Panama-Pacific Exposition, in San Francisco.

Fifty photographs will be chosen in all, and prizes totaling five thousand dollars will be distributed as follows:

First prize	$500.00
Second prize	450.00
Third prize	350.00
Fourth prize	250.00
Fifth prize	200.00

Twenty prizes of $100.00 each.
Twenty-five prizes of $50.00 each.

The selection of the winning photographs will be made by three impartial judges, chosen for their special ability to appraise true feminine loveliness.

This contest will, undoubtedly, create national interest, and it will afford a real opportunity for enterprising photographers to profit by it. To promote this national interest, Ansco Company will extensively feature the contest through advertising in the leading publications. In succeeding issues of Wilson's Photographic Magazine, additional plans, to give photographers greatest benefit from this contest, will be fully outlined. This special assistance to be rendered by Ansco Company will be very effective.

The contest will begin on May 1st and close December 1st. It will be open to all professional and amateur photographers, and competitors will not be limited to the use of Ansco goods. Each competitor may enter any number of photographs, taken with any camera, and printed on any paper. The full details of the competition are being printed in a special folder which will be distributed through Ansco dealers.

It does not seem possible to conceive of a contest which would be more interesting to the public at large, as well as to the photographers. Husbands, brothers, fathers,

mothers and sweethearts will all be anxious to have their "Loveliest Women" represented in the contest, and the "Loveliest Woman" herself will not be backward in having her photograph taken for exhibition.

The plan is exceptionally appealing in itself, and the national advertising which will feature it will be of an extent and character to focus widest attention, and sustain enthusiasm throughout the period of the contest.

The next number of WILSON'S PHOTOGRAPHIC MAGAZINE will contain more about this contest. Every photographer should read these articles and use them as a basis for planning his own campaign to profit by this unique and charming competition.

WHAT IS THE STANDARD OF YOUR PHOTOGRAPHIC WORK.

DID you ever stop and wonder how near the 100% mark your photographs come?

This is one of the many things we are going to tell you at the Big $1.00 Convention at Scranton, March 17-18-19, 1914.

We want you to send us photographs to be hung in one of the four classes, viz.: Class A, Cabinet Class; Class B, Portrait Class; Class C, Art Class, and Class D, Commercial Class. Entries in each class call for three prints, except Class A, which requires six pictures. Exhibits may be framed or unframed, but must not contain the name of the photographer.

The only person besides yourself who will know the maker of your pictures will be the secretary, who will give them a number and notify you of same.

The photos then will be rated by one of the foremost artists of the country, as to composition, etc. They will also be judged by two of the best photographic critics of the United States. Their criticisms will be published in book form with ten of the best photographs shown.

This criticism and book will be worth $10.00 of any wide awake photographer's money and all you will have to do is to send $1.00 to W. I. Goldman, Treasurer, Reading, Pa. (stating what salesman or demonstrator to give the credit to) for the 1914 dues which will entitle you to all privileges at the Big $1.00 Convention in Scranton, March 17-18-19, 1914.

Do it now. Be sure and send prints.

Fraternally yours,
(Signed) J. H. KOLLBERG,
First Vice-President.
P. P. S. of Pa.

DADDY LIVELY'S Southern School of Photography, McMinnville, Tenn., opened its eleventh successive year, Monday, January 12th, with a highly satisfactory enrollment. Later arrivals have increased the student body considerably. Almost every section of the United States is represented. Six of the students are from Illinois. Others come from Pennsylvania, Indiana, Ohio, Michigan, Missouri Nebraska, New York, Texas, Tennessee, West Virginia, and Alabama.

Earl Patton of Shelbyville, Ill., who spent three months of last year's term at the school, has returned to complete his course. After leaving school last summer, Patton secured a position in a studio at Daddy Lively's recommendation and held it until he was ready to return to McMinnville.

Students in both the class for beginners and the advanced class enrolled this year have proven to be industrious workers, and Daddy Lively is highly pleased with the outlook for a satisfactory term.

A GOOD IDEA FOR A POSTAL

PRINTS FOR REPRODUCTION

In the treatment of prints for reproduction a Scottish enthusiast contemplates patenting a process by which overprinted positives are made to appear of even density by the scraping away with a very sharp knife of the overprinted parts. The weaker images are then strengthened and the whole grained by an approved method providing the graining be as deep as possible. The print is then covered over with thin transparent paper and the picture traced on the reversed side, using the deep graining to secure full gradation in the heavy shadows. The tracings for lithographic

work are then transferred to stone in the customary manner and, if for half-tone blocks, reproduced upon zinc in the ordinary way.

Non-reversing Emulsion

A very interesting English patent has just been published for the formation of an emulsion that will not give reversal, no matter what degree of overexposure is given. The inventor, R. E. Crowther, claims the use of compounds of paraphenylenediamine. The specific formula recommended is para-toluylene-diamine-hydrochloride one part, sodium sulphite crystals one part, distilled water seventy-five parts, and ethyl alcohol twenty-five parts.—*E. P.*, 29919, 1912.

Were it possible to find some substance that would make the average camera user absolutely independent of exposure, there would be considerable improvement in the quality of the results obtained, because one would only have to expose long enough to make sure that a decent negative would be obtained. It is an open question whether the above patent is valid. Mercier (Bull. Soc. Franc., 1898, pp. 429, 521) suggested the use of the salts of antimony, arsenic, morphine, codeine, etc., and also the products of the oxidation of amidol, metol, hydroquinone and other developers for the same purpose. His suggestions were examined by Valenta (Eder's Jahrbuch, 1899, p. 320) and he expressly states that meta-para-phenylene-diamine is very efficient for this purpose. Apparently these additions slow down the emulsion, but in practice this would be of no moment.

The Keeping of Carbon Tissue

Thorwaldsen has found that the non-keeping property of carbon tissue is much increased by minute traces of copper and iron salts, which exert a catalytic action. Greater keeping properties are given by the addition of oxalates and tartrates.—*Bull. Soc. Franc.*, 1913, p. 345.

The use of citrates and oxalites was suggested by Namias in 1902, and in the following year Bennett recommended the following bath:

Potass. bichromate	20 g.
Citric acid	5 to 10
Water	1000 ccs.
Ammonia	Q.S.

I have used this ever since and it certainly improves matters.

"The Visible" Photo Printer Co. have arranged for demonstrating space at the convention of the Photographic Dealers Association of America, to be held in Chicago on March 24th, 25th, 26th and 27th, 1914, where they shall be pleased to meet you and show the time, labor and money-saving qualities of "The Visible" Photo Printing Machine. Both size machines will be on exhibition and arrangements for exclusive sales agency and territory can be closed with their representative. If you are interested in more sales and profit, be sure to make a memorandum of this exhibit and look them up.

Schering & Glatz beg to call your attention to an important modification of the Assur-Color-Technique. Instead of using the color medium as directed in our first leaflet on this coloring method, dissolve about 30 to 60 drops of color-medium in one ounce of turpentine and use this solution for mixing the colors, viz.: A linen rag is smoothly wrapped around the index finger and moistened with the color medium solution; the colors are then thoroughly rubbed up with this and applied to the print. If absorbent cotton is moistened with this mixture the method of taking up the medium is still further simplified. This mode of application insures absolute uniformity.

YOU ARE INVITED TO SUBMIT PRINTS FOR THE ELEVENTH SALON (TWENTY-THIRD ANNUAL EXHIBITION) OF THE TORONTO CAMERA CLUB

Conditions of Entry

All pictures must be mounted but not framed.

Each picture must be the entire work of the exhibitor.

Each person must place a nom de plume, number, class and title on the back of each mount, sending, at the same time, the entry

form in a sealed envelope, upon which must be marked only the nom de plume and the number of prints entered, so that they may be identified after the awards have been made.

No awards will be made to signed prints; any violation of this rule will disqualify.

Any number of prints may be submitted, but only such as, in the opinion of the Jury of Selection, show distinct artistic merit will be selected.

The Jury of Selection will consist of three competent and disinterested persons, and their decision shall be final.

A gold medal will be awarded to the best print in the Salon, and the picture winning this award is to become the property of the Club.

Also a silver and a bronze medal will be awarded to the two best prints in each of the following classes:

A.—Landscape. C.—Genre.
B.—Portrait. D.—Marine.

Honorable Mention in the various classes may also be given at the discretion of the Jury of Selection.

Exhibitors will not receive more than one award in any one class.

Each person submitting prints will be furnished with the catalogue of the Salon, which will be official notification of acceptance or rejection of the works submitted to the Jury of Selection.

All exhibits from points outside of Canada must be sent by post.

Pictures must be delivered, charges prepaid, to the Secretary of the Salon, Toronto Camera Club, No. 2 Gould Street, Toronto, Canada, and must reach clubrooms not later than Friday, April 17th, 1914.

All exhibits will be repacked and returned to exhibitors as soon as practicable after the close of the Exhibition. Special care will be taken of all exhibits, but responibility for loss or damage cannot be assumed by the club.

For additional entry forms or other information address J. F. Howitt, Secretary of the Salon, 2 Gould Street, Toronto, Canada.

A Non-Reversing Emulsion

A sensitive emulsion to receive a photographic image that will not reverse is the extraordinary discovery of R. E. Crowther, of Carlisle. The patentee finds that by bathing a film of silver haloid in paraphenylenediamine or any of its derivative salts overexposure may be given without revolving reversal of the image.

Another invention for the improvement of enlarging apparatus consists in having a circular lantern illuminated by two electric globes at opposite extremities. The light does not reach the negative directly, but is reflected from the surface of the lantern.

SECOND ANNUAL CONVENTION PHOTOGRAPHIC DEALERS' ASSOCIATION AT HOTEL SHERMAN, CHICAGO, ILL., MARCH 24, 25, 26, 27, 1914

This meeting is expected to be even more successful and of greater benefit to dealers and manufacturers than the previous one.

Over fifty manufacturers will exhibit merchandise, including the latest improvements in motion picture apparatus, imported cameras and all makes of domestic apparatus and supplies.

Practically every advancement and improvement in photography, made either at home or abroad, will be on exhibition and discussed, so that everyone attending will be thoroughly conversant with the late t achievements in the photographic field.

The forming of a National Credit Bureau and the prices of plates and papers are among the important subjects which will be discussed.

Talks of especial interest by those most competent to know will be given on subjects that will help dealers increase the efficiency of their business and profit.

Manufacturers and dealers from all over the United States are looking forward to a most enjoyable as well as profitable four days, and judging by the preparations already made by the officers of the association, they are certainly not likely to be disappointed.

Burke & James, Inc., will give a banquet to dealers on Wednesday, March 25th.

The following is a list of some of the manufacturers and their exhibits, alphabetically arranged.

Albany Card & Paper Mfg. Co.—Photographic Mounts.
Albany Chemical Co.—Chemicals.
Allison & Hadaway—Specialties.
American Cinematograph—Motion Picture Apparatus.
Ansco Co.—Photographic Material.
Automatic Developing & Printing Co.—"Special."
Bausch & Lomb Optical Co.—Lenses and Projection Apparatus.
Bell & Howell Co.—Motion Picture Apparatus.
Berlin Aniline Works—Chemicals.
Burke & James, Inc.—Photographic Supplies.
Burrough-Wellcome Co.—Tabloid Chemicals.
E. S. Caywood—Flashlight Apparatus.
Central Dry Plate Co.—Dry Plates.
A. M. Collins Mfg. Co.—Card Mounts.
Crown Optical Co.—Lenses.
Dennison Mfg. Co.—Specialties.
Ernemann Photo-Kino Works—Cameras and Motion Picture Apparatus.
Forbes Dry Plate—Dry Plates.
G. Gennert—Camera & Motion Picture Apparatus.
C. P. Goerz American Optical Co.—Cameras and Lenses.
C. N. Graves Co.—Timing Clocks.

Gundlach-Manhattan Optical Co.—Cameras and Lenses.
Haloid Paper Co.—Papers.
Hammer Dry Plate Co.—Dry Plates.
Ralph Harris Co.—Specialties.
Ilex Optical Co.—Lenses and Shutters.
International Photo Sales Corp.—Cameras, Lenses and Specialties.
Japanese Water Color Co.—Transparent Water Colors.
J. L. Lewis—Specialties.
Mallinckrodt Chemical Co.—Chemicals.
Max Meyer—Cameras.
Motion Picture Apparatus Co.—Motion Picture Apparatus.
Geo. Murphy, Inc.—Photographic Material.
McIntosh Stereoptican Co.—Projection Apparatus.
Nicholas Powers Co.—Motion Picture Apparatus.
Photo Lines Co.—Motion Picture Apparatus.
Presto Mfg. Co.—The Infallible Tinting Masks.
Prosch Mfg. Co.—Flashlight Apparatus.
Reflex Camera Co.—Reflex Cameras.
C. B. Robinson & Sons—Studio Furniture.
Seavey Co.—Backgrounds.
Seneca Camera Mfg. Co.—Cameras.
J. H. Smith & Co.—Victor Phot. Specialties.
The American Paper Goods Co.—Paper Goods
The Heinn Co.—Albums.
The Precision Machine Co.—Simplex Projectors.
The Wold Air Brush Art Shop—Air Brushes.
Victor Animatograph Co.—Projection Apparatus.
Visible Photo Printer Co.—Automatic Printer.
H. C. White Co.—Enlarging and Projection Apparatus.
Whyte-Whitman Co.—Motion Picture Apparatus.
Wollensak Optical Co.—Lenses and Shutters.
Worcester Envelope Co.—"Berwick" Developing and Printing System.

DAS LATENTE LICHTBILD SEINE ENTSTEHUNG UND ENTWICKLUNG, by Dr. M. Andresen. Published by Wilhelm Knapp, Halle (Saale). Price 2.40 Marks.

In this little work the author, so well known as the discoverer of many of our developing agents, deals first with the formation of an emulsion from the theoretical standpoint, particularly as to the ripening by increase of the size of the grain, and assumes the formation of an adsorption compound of $(AgBr)^n$—Gelatine, adopting Quincke's foam theory, explaining the increase of sensitiveness by the formation, through digestion, of a labile equilibrium between the silver bromide complex and the adsorbed gelatine, which may be broken down by further digestion, with consequent fog.

He then sums up the prevalent theories as to the formation of the latent image and apparently favors Abegg's silver germ theory, as more recently advocated by Lueppo-Cramer, who assumes the formation of an adsorption compound of silver bromide and metallic silver. This must necessitate the setting free of bromine, and this is difficult to reconcile with the well-known researches of Dewar that prove that all chemical actions cease at very low temperatures, whilst a latent image can still be formed at those temperatures. Andresen entirely ignores the electronic theory, first enunciated by Joly in 1905, and which is fast gaining ground as the only one that can really explain all the puzzling phenomena of the latent image, solarisation, etc., and this is a serious omission.

In dealing with development the author gives a clear sketch of the periods of under, over and correct exposure and describes the action of various oxidising agents on the exposed image and the results are all so presented as to support his pet theory of the latent image. His sketch of the chemistry of the chemical developers is not of so much value as it might be because he refers to his work in Eder's Handbook, and, therefore, to understand the value of Andresen's work one must have, or have access to, Eder; but his explanation of why metol and paramidophenol and metol are energetic developers and why hydroquinone is not, is decidedly interesting and throws new light on the subject, and in connection with Pinnow's recent work will be of some value. As to his instructions for varying the composition of the developer, and he deals with metol only, it can only be said that they might work out in practice, if one only knew beforehand exactly whether one had over or underexposed, but as one never does know, they do not strike one as of much moment.

The book is easy reading and contains a clear statement of many facts which ought to be more generally known than they are, and from this standpoint can be recommended.

With one passage we are most heartily in agreement, and we can only hope that Dr. Andresen's prophesy will soon come true, but like the Scotchman "we ha'e oor doots," for after dealing with the latitude and characteristic curve of the plate and from the influence of the same on the printing process, he says: "I see the time coming when the large plate makers will mark their plates according to one uniform system and give the characteristic curve of the plate. The user will then learn at a glance not only the sensitiveness of the plate, but also whether and how much development fog is to be reckoned with, what the latitude is, and what means have to be adopted during development to obtain the best gradation for the printing process that is to be used. I am convinced that the general quality of the plates would be raised by this system and in this way the whole dry plate industry would be favorably influenced."

E. J. WALL.

Photographs on Ivory

The surface of the ivory should be very even and be polished by means of a piece of soft waxed leather, sprinkled with powdered pumice. It is then dipped in a perfectly white and transparent alcohol varnish, and dried with gentle heat. Then take:—

Water	100 parts.
White Gelatine	10 "
White Sugar	5 "

Dissolve these in a water bath; filter, and apply to the ivory with a camel hair brush. When dry, this coating is brushed over (in the dark room) with the sensitising solution, which is made up as follows:—

A.

Distilled Water	4 ccm.	= 3 drams
Silver Nitrate	4 grams	= 62 grains

B.

Alcohol	60 ccm.	= 2 oz
Strontium Chloride	3.15 grams	= 50 grains

C.

Alcohol	60 ccm.	= 2 oz
Citric Acid	3.15 grams	= 50 grains

For use, take 2 ozs. of normal collodion, 30 drops of solution A, first adding to it 3 drams of alcohol. Then add, gradually, 3 drams of solution B, shaking well; finally add one-half of solution C. The surface of the ivory is covered evenly with this mixture, and will be ready for printing in about fifteen minutes.

Print under the negative until a quite vigorous image is obtained, wash under the tap and tone with gold (preferably an old bath); fix in a twelve per cent. hypo solution. This method gives very fine tones.

H. O. Bodine Leaves the Wollensak Co.

Mr. H. Oliver Bodine has tendered his resignation, effective on March 1st, 1914, as Manager of the Promotion of Trade Department of the Wollensak Optical Company, of Rochester, N. Y., and has accepted the position of Director of Publicity and Sales with the Raw Film Supply Company, Inc., 15 East 26th Street,, New York City.

Mr. Bodine has a wide reputation in the photographic fraternity, and is well equipped for his new field. He has our best wishes for added success.

One of the most remarkable speed plates introduced on the American market in recent years, according to Thomas Hadaway of Allison & Hadaway, 235 Fifth Avenue, New York, is the new A. & H. importation of Marion & Co.'s Record Plates.

A great number of sample packages were sent out by Mr. Hadaway to prominent photographers, both amateur and professional, with the request that they be tried out for speed, latitude, fineness of grain and freedom from fog. The reports received from the sample packages were so unanimously favorable, that the Company has increased its order for immediate importation.

Efforts were made to secure additional sample boxes, but due to the fact that the English factory was overtaxed in its attempt to keep pace with the demand in England, it was impossible to secure a new supply.

Therefore, those interested in extremely fast plates, should send immediately for a full-sized box, remitting the price as per their advertisement.

Practical Cinematography and Its Applications, by F. A. Talbot

With nearly 100 illustrations, 12mo. Cloth, $1.00 net. Postpaid $1.12.

This volume has been written with the express purpose of assisting the amateur—the term is used in its broadest sense as a distinction from the salaried, attached professional worker—who is attracted towards cinematography. It is not a technical treatise but is written in such a manner as to enable the tyro to grasp the fundamental principles of the art, and the apparatus employed in its many varied applications.

While it is assumed that the reader has practised ordinary snap-shot and still-life work, and thus is familiar with the elements of photography, yet the subject is set forth in such a manner as to enable one who never has attempted photography to take moving pictures.

At the same time it is hoped that the volume may prove of use to the expert hand, by introducing him to what may be described as the higher branches of the craft. The suggestions and descriptions concerning these applications may prove of value to any who may be tempted to labor in one or other of the various fields mentioned.

E. B. Core to Retire

E. B. Core, the well-known and popular "photographer of children only," has decided to definitely retire from business. The lease on his Fifth Avenue studio expires on April 1st of this year. Mr. Core will take that opportunity of closing his gallery and ending a photographic career which has extended over fifty years. The business, good-will and the negatives will not be sold. Few have had a more honored or prosperous career, and is better beloved by the fraternity than Mr. Core. He has our hearty good wishes.

Why not order the Universal Developer? Many people are not aware of the fact that for this purpose, Ortol is far more advanced than any other developer agent. You can place your confidence in Ortol and feel certain that you will always get the best results for your plates, film, negatives or papers. Ortol is simply handled, and by increasing the amount

of Ortol, the time of development can be accurately controlled. Ortol in the tank is most satisfactory for 20-minute development. Ortol tube sets are an excellent way for the traveler to carry his developer agent. For information see G. Gennert, 24 and 26 East 13th Street, New York City; 320 S. Wabash Avenue, Chicago, Ill., and 682 Mission Street, San Francisco, Cal.

THE 1914 GRAFLEX CATALOG

WE take pleasure in showing the attractive cover design of the new Graflex catalog.

Those who photograph for pleasure or profit fully realize the many advantages of this standard camera.

The Graflex, employing well-known optical principles in a new way, completely eliminates uncertainty of focus and makes it possible to obtain fully timed negatives indoors, in the shade, or on cloudy days, with exposures of very short duration.

We call attention of our readers to the marked reductions in the price of Anastigmat lenses; also to the new Graflex Junior—a real Graflex, at an extremely moderate price. A copy of this catalog can be had by writing Folmer & Schwing, Division, Eastman Kodak Co., Rochester, N. Y.

Professionals, as well as amateur photographers, should have Hammer's little book entitled "A Short Talk on Negative Making," which will be mailed free to any reader of WILSON'S on application to the Hammer Dry Plate Co., St. Louis, Mo.

THE best year ever, is the report of A. A. Dailey, Sales Manager of The Photo Products Company, of Chicago, in a recent interview.

"We have made more real progress in 1913 than any previous year. It saw a radical change in our selling policy. We have eliminated dealers and demonstrators now selling only to the user direct. The way we look at it, is that the average photographer knows as much about handling developing paper as the next fellow. We have made some very important additions to our line of papers which are now complete from "soup to nuts." Linen surface Platora has proven a winner and we are selling lots of it. The new medium soft Platora emulsion has made a hit with our trade, especially those who found the regular soft Platora emulsion a little too soft for their negatives.

We have also added Regal, a bromide paper, for enlarging, and in Insanto have taken on the extra hard grade, which is greatly appreciated by amateur finishers. These changes have kept us busy, but we have made plans for 1914 that will keep us moving still faster. Any professional photographer who wants to receive the interesting messages we will send out from time to time, should send his name at once asking us to place him on our mailing list. We are glad to say that not a small share of our new business is due to WILSON'S MAGAZINE."

CURRENT TOPICS IN LEADING PERIODICALS

Copying, Up-to-Date, E. J. Wall, February *Photo Era.*

Combined Use of Tones and Stains, January 27th, *Photgraphy & Focus.*

Clouds in Bromoil Prints. C. H. Hewitt, *February 2nd, Amateur Photographer.*

Fog from the Camera, February 6th, *British Journal.*

On Media of High Refractive Power for Photomicrography, Chapman Jones, January *Photographic Journal.*

Restoring Faded Photographs, February *Photographic Times.*

Radiography of Flowers and Plants, The, January *Photographic Journal.*

Reception Room, The, January *Camera.*

Some Special Methods of Dealing with Screen Plate Transparencies, January. *Photographic Journal.*

Stains on Negatives, January 25th, *British Journal.*

Soft Effects, February 6th, *British Journal.*

Spots on Prints, February 13th, *British Journal.*

Selection of a Negative for Enlarging, February 9th, *Amateur Photographer.*

Toning Gaslight Prints by Development, January 30th, *British Journal.*

F. & S. Professional Printer

HERE IS A PRINTER THAT WILL GIVE YOU THE SERVICE YOU HAVE BEEN LOOKING FOR

8 x 10
(without lamps)
$25.00

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It is operated by a foot treadle, leaving both hands perfectly free to adjust paper and negatives. The two large folding leaves at the side afford ample room for paper, negatives and finished work.

Nine Mazda Lamps in three rows illuminate the printing surface, *and the current is on only during exposure.*

Let us send you a circular describing the F. & S. Professional Printer.

Folmer & Schwing Division,

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The paper without a disappointment.

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ARTURA DIVISION,
EASTMAN KODAK COMPANY,
ROCHESTER, N. Y.

WILSON'S Photographic *Magazine*

AN ILLUSTRATED MONTHLY
DEVOTED TO PHOTOGRAPHY
FOUNDED IN 1864

APRIL · 1914

EDWARD L · WILSON CO · INC
122 East 25th Street · NEW YORK

Nell Gwynne

Famous beauty of the Seventeenth Century

Your "loveliest woman" is quite as fascinating. Through your efforts she may be chosen one of America's loveliest women."

$5,000 for Photographs of America's 50 Loveliest Women

Ansco Company will present to the world at the Panama-Pacific Exposition, San Francisco, 1915, photographs of America's fifty loveliest women. Camera users of the United States and Canada, whether amateur or professional, are invited to make these photographs. Ansco Company will pay the sum of $5,000.00 for the fifty chosen pictures.

THE FULLER SISTERS

BY [illegible]

NEW-YORK

WILSON'S PHOTOGRAPHIC MAGAZINE

FOUNDED IN 1864 BY EDWARD L. WILSON

VOL. LI. APRIL, 1914 No. 4

ALICE BOUGHTON PHOTOGRAPHER

BY BEATRICE C. WILCOX

ALICE BOUGHTON is well known in New York and elsewhere as a portrait photographer, illustrator and a maker of beautiful out-of-door pictures. Her studio has been established in New York for a number of years; her work appears in all the best exhibitions in this country and abroad and she is a constant contributor to the current periodicals.

When she began her work new photography and artistic photography were looked upon by the public with derision, much as futurism and cubism are to-day. Now every country town has its so-called artistic photographer and the demand is for natural poses and soft prints instead of the hard, shining and much retouched prints of a decade ago.

The daguerreotypes of our ancestors had much more of interest and artistic quality than the portraits of the hard and smooth period which have been succeeded by the beautiful prints and carefully composed pictures of to-day.

It was when this movement was in its infancy that Miss Boughton began to experiment with the camera as a new medium of artistic expression. She had studied painting in New York and Paris and was an artist before she became a photographer. She had ideas to express and a sense of color values, form and composition, long before it occurred to her to make photography her chosen medium.

She had no traditions in regard to the camera, but realized that good compositions could be arranged within the focus of the camera and that there was great chance for individuality in printing. While recognizing its limitations, Miss Boughton saw also great possibility and opportunity in photography, as an artistic method. Her first camera was a large and heavy one for eight by ten

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plates; her first backgrounds were the woods and hills of the Berkshires and her first models were two charming nude children. She worked for a whole Summer, as a painter might, in making a series of out-of-door studies with figures.

MAXIM GORKY
BY ALICE BOUGHTON, N. Y.

Undaunted by technical difficulties or physical effort this artist cheerfully dragged her heavy camera through the woods and over the rocks, taking pictures in sun and shade, by waterfalls and running brooks, and in dim wood interiors. She inspired her little models with her own enthusiasm and obtained some wonderful pictures of youthful wood-nymphs and dryads, full of childish unconsciousness and charm. In this series of lovely studies we see them swimming in the pool, perched on hard rocks by the great waterfall or playing in the flickering shadows of the wood, and all as naturally as if they really were the little wood creatures they seemed to be. The artist has overcome in a wonderful way the feeling of pose which is so often felt in a picture photograph, especially in studies from the nude.

Artistic grouping and the study of effects of light and shade were by no means the whole of this Summer's work. The technical part of handling the camera, developing and printing were still new to Miss Boughton, and on this isolated Berkshire farm there was no preparation for the photographer. Having no traditions and no prejudices, there were no difficulties too great to overcome. She improvised a dark room, with the aid of black cambric, in a closet under the stairs in the barn, and her negatives were washed in the running brook, involving endless trips through the cow pasture, to and from the house.

In spite of the many difficulties there were enough results of this first independent Summer's work to form Miss Boughton's first exhibition in a Fifth Avenue Gallery the following season. Here she showed a number of gum prints, or gum-bichromate prints, a process in which she became much interested. These prints are perhaps the most artistic of any, since they may be made on papers of different textures and they can attain variety by manipulation. They are especially adapted to nude figures out of doors, since outline and modelling may be suggested or accentuated, as the development of the print can be carried farther in some places than in others. The gum print makes it possible to subdue and eliminate unimportant detail, and becomes almost freehand work, so sensitive is the wet print to the touch. It is impossible to make two prints alike, and the difficulties are very great in producing a successful one.

Another Summer's work was with nude figures on the sea shore where there were great sand dunes. Here was an opportunity to study the close values of flesh against the sand. The brilliancy of light by the ocean made the figures too sharply defined, so Miss Boughton worked only on grey days or in the late afternoons. This Summer's work gave an opportunity for the greatest possible contrast in effect and lighting from that in the woods.

Miss Boughton worked for a short time in the studio of Gertrude Kasebier, and it is to her that she owes her earliest training and the inspiration which led her to the choice of photography as a

profession. Gertrude Kasebier had the courage of her convictions as a pioneer in her chosen field, but it was many years before her masterly work received the recognition it deserved. She has always handled her work with distinction and originality and she has a sense of tone and value which is the despair of many of the younger photographers. Nevertheless, she went through many early discouragements and it was her steadfastness which did much to prepare the way for those who were to follow her.

Before opening her own studio, Alice Boughton had some experience in making portrait studies of people in their own homes, and she soon became quite as interested in portraiture as she had been in out-of-door work.

The second floor of an old-fashioned house on Madison Avenue was chosen as her first studio. The lighting here was from a bay window which made endless difficulties, at the same time giving opportunity for many beautiful and natural effects. This photographer does not care for top lighting, preferring the side light from a window as it would be in an ordinary room.

One Summer Miss Boughton tried a new field with her camera; that of photographing houses and gardens. One of her most important pieces of work is a splendid set of photographs of the Rockefeller estate at Tarrytown. These gardens are enormous and elaborately planned by a landscape architect. It is a garden composed of many gardens, each with its own beauties of form and arrangement. To show them in pictures meant numerous studies of detail as well as of the large effects and the photographer had to make many trips in order to get the best effects of light and shade, and to do justice to the wonderful variety and unique charm of this place. She made a final set of seventy-five pictures, although many more studies had been made.

Illustration by photography is a field which presents its own problems on account of the limitations of the camera, the need of special backgrounds or settings and the trouble in getting the proper type for models. Miss Boughton dislikes using professional models, as a rule, and has been fortunate in having many artist and actor friends who were willing to lend themselves for any character or pose.

BY ALICE BOUGHTON, NEW YORK

All one's technique, as well as the artistic understanding of a well-balanced composition is required to photograph a group for illustration. The group must not only make a picture and present a good arrangement, but each figure must be properly focussed whether in a prominent or subordinate position. This does ont mean that all of the figures must be equally sharp and clear, but that all must be nearly in the same plane. For instance, with the Fuller Sisters, the artist had her own troubles in managing a harp and three hoop-skirts.

An especially fine set of illustrations represents the healing miracles of Christ. Walter Hampden, who was at that time playing in Charles Rann Kennedy's "The

Servant in the House," posed for the figure of Christ. These pictures are beautiful compositions and Miss Boughton has succeeded in portraying very difficult subjects with a spirit of reverence and dignity. They were reproduced in a magazine and a set of enlargements was exhibited at Doll and Richards, in Boston, where they attracted much attention.

A tireless worker herself, Alice Boughton stops at no labor or trouble in order to obtain her desired effects and she does not spare her sitters. But she succeeds in imparting to them some of her own enthusiasm and in making them interested in what she is trying to express.

There are manifest difficulties about photographic illustration, as when one is expected to make Christmas pictures in August and skating in April, but, as Miss Boughton says, "There is always a way out."

After seeing the Bible pictures, an actor who came to her studio, said to her: "Can you do the coast of Morocco in here?" "Oh, yes," said the photographer, undismayed, and she proceeded to do it.

Her theatrical groups and figures are not posed to represent any single scene in the play, but to make pictures in themselves. Such pictures are to be seen in the "Prunella" groups, the actors in "Sumurun," "Sister Beatrice" and "Tintagiles" of Maeterlinck, "The Piper," "The Winterfeast" and others.

While she is interested in illustrative work and in out-of-doors studies, Miss Boughton's principal work is in portrait photography.

Many celebrated men and women have sat to her for their portraits, and not the least interesting part of her work is in coming in contact with these various personalities.

An experience never to be forgotten was the kindliness of Prof. William James, who had time for everybody, and the sympathetic touch and vivid personality of Ellen Terry.

Celebrities are not always kindly and sympathetic, or even interested in their own pictures, but the photographer must in some way try to get in touch with each one. For instance, Maxim Gorky, who spoke no language but Russian, sat gloomily absorbed in his own thoughts and expected the photographer to do everything. Miss Boughton finally penetrated his gloom and got a look of responsiveness through her interest in his young adopted son, who spoke French and acted as interpreter.

She has taken actors in small dressing rooms, on the roof, and fire escapes, and has overcome many obstacles and perplexities of lens and camera, but, in her opinion, handling the people is the hardest work of all.

A photographer must have the social instinct, a sympathetic personality, tact and the infinite patience to make his sitters feel at ease and to bring out the best qualities of each one. Besides this, he must have the technique at command to catch the fleeting expression of the best moments, and at the same time to make the picture a pleasing composition with good lighting.

BY ALICE BOUGHTON, NEW YORK

To do all this with the best methods demands the keenest concentration of energy and interest. A photograph cannot be worked over at repeated sittings like a painted portrait. It is done in a very brief time and that is the end of it. Miss Boughton takes many plates sometimes of the same pose in her effort to secure the effect she has seen. She seldom expects the first two or three plates to be good, as it takes about that

length of time for the average sitter to lose his self-consciousness.

She enjoys doing men, women and children, although she perhaps enjoys best making portraits of men and doing them with simple, strong lighting.

Groups of several children are not an easy thing to do, but in this she has been particularly happy in arrangement and expression.

She has no special mannerism in portraiture as she is always tying to get the best effect for each sitter. One of the things she most enjoys doing is an effect of close values and delicate outlines like a Holbein or a Clouet drawing. This makes a beautiful print in a light scheme of whites and grays. But this is only suitable for some women and children, or for extreme old age. Heavy blacks and browns are for brunettes and strong masses are for men. There are many gradations in between.

Some of her later work with nude figures has the same poetic and unconscious quality that is seen in the children in the Berkshire woods. Her nude figures are never obviously posed, and they have a simplicity and purity of line, that is not always to be found in paintings from the nude.

Alice Boughton's work has great variety and flexibility. Much of it has a painter's quality and it is marked throughout by dignity and sincerity.

FOR THE PROGRESSIVE PHOTOGRAPHER

HIS OPPORTUNITY

BY MANLY W. TYREE

President P. A. of A.

THERE is a growing tendency of human nature which, in my opinion, is the most potent and powerful hindrance in every line of human activity and thought. I would call this influence the bondage of precedent, meaning our inability or unwillingness to attempt to solve the problem of to-day without dragging in the solution the processes of yesterday; the mistake we make in holding on to the means by which the successes of the past were obtained, instead of giving all our energy and thought to the discovery of processes in keeping with the new problems.

Conditions are constantly changing; a positive truth of yesterday is only a partial truth to-day. Therefore, the process that was a correct solution for the progress of our Association a year back will not answer the needs of the present. We must forever keep solving problems that confront us with the changing of the night.

The Photographers' Association of America stands to-day for service. Service not for a week or month, but for every day in the year, and to that end it has employed a General Secretary, whose entire time is devoted to solving the problems that confront us daily.

An expert Audit Company is investigating the business of a number of Studios, from the big establishment with its score of employees to the one-man Studio in the small town, in order to devise a cost system that will cover all contingencies.

For the first time the scene of the National Convention is in the land of Dixie. This affords an exceptional opportunity to the Northern and Western

man to visit us in the Southland and the Southern Photographer to visit the big show and get in touch with modern ideas without having to travel so far from home, and the program of the Atlanta Convention is to be strictly of an educational character. Nothing will be shown that is impractical, but it is the purpose to give you a program that is brimful of practical information and work that one can use to advantage every work day of the year.

There will be well-known photographers who will demonstrate to you under a skylight similar to the one that you are working every day. All standard plates will be used. These men will be assisted by regular demonstrators of the various Plate Companies. You will be shown the manipulation of light, the method of handling the subject, and 30 minutes after the close of each demonstration, the plates exposed will be shown developed on screens so that every one can view them. By the use of the Balopticon, the plates, while being projected will be worked in with background, retouched and etched, in fact, all the latest ideas for improving the negative will be fully carried out by expert retouchers in full view of every one in the audience, no matter how many people are present.

After the negatives are worked up, they will be handed to the print demonstrators who will make prints of them on the various grades of paper. These demonstrations will be conducted by the various paper manufacturers, each at his own stall, fully equipped to give you the latest ideas in masking, dodging, etc., that is used to get the finest possible results in the finished prints. All questions will be answered and demonstrations will last four hours, so that every one will have the opportunity to study and learn without hurry.

As the air-brush plays an important part in every well-equipped studio and as the average photographer has not had the advantage of seeing the practical working of this little instrument as applied to photography, a well-known artist will be on hand to give you actual results by the brush, and will make it so simple and plain to you, that you can apply it to your business at once. You will be surprised what an important part this brush plays in raising not only the standard of your work, but your prices.

The business end is well taken care of by men who will talk to you about the leaks and how to prevent them. These talks will be plain and to the point. The idea is to give you some real meat and information that will prevent an extravagant outlay of cash with small returns.

The Atlanta Convention should go down in history as showing the finest collection of pictures ever brought together and this is the reason upon which I base my calculation. Three pictures will be solicted from each exhibitor and will be passed upon by a jury of three, one artist and two photographers, who are recognized for their ability. All pictures submitted will be hung; those rating above 65% will be placed in the accepted class; all others will be placed in the rejected class. No names to appear on any pictures. The jury will be present at all times to give private criticism by request. Should your picture be placed in the rejected class, the jury will be there to tell you why, in their opinion, this is so.

Now listen. In order to form a permanent collection of pictures to be owned by the National, pictures will be purchased, not to exceed 20 in number, of the best pictures exhibited and for which the Association will pay $25 each.

The writer has been promised pictures from the very best workers in this country and abroad.

The ideas inaugurated in handling this exhibit should get the best results.

Color Photography will not be neglected and a fine collection of autochromes are being sought and a splendid exhibit is expected.

Space will not permit me to go into detail of the many advantages derived from visiting Atlanta Convention, June 15th, but I want to impress you with the fact that it is the desire of the officers to give you five days of convention that will be chuckfull of ideas that will help you to better your work. There will be no "going over the heads" of any of us. Whatever is given to you will not be

theory, but actual results that you can apply to your own business.

There is no appeal made to you to visit this meeting to help the organization. While you will do this if you come, at the same time, when the convention is over, you can count over the amount of cash that it costs you to go home, feeling that you have had a great, big heaping pound of your money's worth and be glad that you went. Then, for the next twelve months, turn the information that you receive into good, hard dollars and anxiously wait the coming of the future conventions.

HOW TO MAKE A STUDIO PAY

VII. DEVELOPING THE SIDE LINES

BY FRANK FARRINGTON

ASSUMING that the main line of work in the studio is that of making portraits there are many side lines or branches of the business that may prove very profitable if properly pushed.

Among these different branches that are properly allied with the business of making portraits are picture framing, developing and printing for amateurs, selling amateur supplies, doing commercial work, making outside views, doing home photography, etc.

Some of these lines of work are so habitually a part of the photographer's regular business that they perhaps need not be called side lines, but, for our present purpose, no harm is done in so designating them.

The picture framing business is a business of itself and many shops make this their sole work, especially in large towns. In the smaller communities, however, the photographer is very likely to be the man who makes the frames.

Framing works in admirably with photography, because the photographer has the obvious opportunity of suggesting to the patron the desirability of having some of his photographs framed. A suggestion to this effect ought to be put up on the wall in the form of a card reading something like this: "Have Your Photographs Framed for the Family."

Instead of leaving it to the person ordering photographs to ask voluntarily about having one or more framed, the photographer, when delivering the finished pictures, ought to suggest that it would be nice to have a few framed for particular friends. It is easy to say: "Why don't you let us frame up part of these? A framed photograph is valued so much more than one unframed and it keeps clean and bright so much longer." If the time is near Christmas or Easter or any other gift season, it is easy to say: "One or more of these framed would make mighty nice presents and it doesn't cost much to have frames put on them," or "Let me show you how a frame would look on this," taking up a piece of appropriate molding and showing what its effect would be.

The visitor to the photographic gallery is not usually in the haste that a customer in a store exhibit. There is times to talk things over with him. When he gets his photographs he wants to see how they look and he likes to hear the photographer's opinion about them, and this gives the best kind of an opening for talk about frames for them.

Of course the framing of photographs is only a small part of the framing business, but it might be made into a much larger part than it usually is

if the photographer would take pains to do the necessary personal work. This is simply a form of salesmanship and with a little practice it will come so easily that it will require no effort whatever.

The framing of other pictures, what may be called the general framing business, needs of course to be built up by advertising and other such means. These are detailed in a later chapter. It may be helped, however, by using ever possible means to interest everyone who enters the studio in framing. Care should be taken in framing sample photographs and other pictures shown. If it is thought that any kind of a frame will do as a temporary protection for the picture on the studio wall, the proprietor may find his framing ability and his taste in moldings judged by some very atrocious combination intended to be a merely temporary protection.

One good way to call people's attention to the necessity for using taste in framing is to take a picture in duplicate. Frame one in an outlandish fashion, showing the extreme of uneducated taste. Frame the other in the best taste, and in the way that best brings out what is in the picture. Hang the two side by side with a card between reading "Note the difference between proper and improper framing. We frame pictures right." Under one picture put a card, "How a picture should be framed," under the other, "How a picture should not be framed."

This little display will help wonderfully to set people thinking. It will particularly impress a class of people who have plenty of money but who know nothing about how pictures ought to be framed. It will send people away thinking that framing is a matter of more care than they had realized and it will leave them with the idea that you are the right man to do their framing because you know what is what.

Of course the sale of framed pictures goes naturally with the framing business, because people who want a picture for a gift are very likely to bring in one of their own and suggest that perhaps you have something already framed that would be better. The studio may not have many calls for framed pictures unless it makes a feature of them, but if it keeps a few carefully selected ones hanging on the walls with prices on them, there will be enough sales to pay a nice profit without carrying any great stock. If there is room and the sales show a tendency to increase, this is a good line to feature.

In going after this business though, with an idea of making it grow gradually to important dimensions, care should be taken to avoid the trashy pictures that are featured in many stationery and so called "art stores." Work along the lines of the best pictures and leave the cheap ones to the 5, 10, and 25 cent stores. The natural tendency of the patrons of the photograph gallery ought to be in the direction of good pictures.

The samples of moldings ought to be kept in good order and gone over often to throw out those out of stock, either temporarily or permanently. If the samples can be shown in a case or rack so that people waiting can be looking them over and incidentally developing interest in the framing of some picture at home, so much the better.

A few popular sized frames in popular prices may be kept made up with the certainty that they will be the means of helping a customer some day who wants a picture framed in a hurry.

In the selection of glass, the best should be bought and no sacrifice of quality made in the effort to save a little money. Putting a poor glass in front of a picture otherwise admirably framed is like putting a shocking bad hat on a man otherwise well dressed.

There should be a generous policy in the matter of screw-eyes and picture wire. It is best to charge enough for the framing to cover such items and then make no separate charge for them. The separate sale of wire, screw-eyes, picture hooks, etc., ought to be made to pay a profit by charging a good rate for them.

Developing and printing for amateurs does not bring big prices any more, but it enables the man who does the dark room work to keep busy. The work fills in the

chinks in time and it does pay. The studio that keeps amateur supplies should of course do developing and printing, as the one service helps the other. And since this work is to be done, it ought to be done well and with a regard for the wishes of the customer. Some photographers pay no attention to instructions from customers leaving films for development and printing, assuming that they are lucky if they get anything at all out of their snap shots.

The amateur's snap shot may be more important to him than your profsssional exposure is to you. Listen with patience to what the amateur customer has to say and then do your best to get the results desired. It is worth while to follow this policy if you want to develop that line of business. If you do not care to develop it, leave it alone entirely.

Care in the work will produce better results and that has its direct advantage in procuring further orders and in holding the customer's trade. It helps the photographer who is anxious to get orders from amateurs for enlargements of their pictures and for framing of these enlargements. It is to be seen thus that all branches of the studio may be made to work together to mutual advantage and growth.

The sale of enlargements of miniatures or hand-colored work is a sale that must be helped by personal work, by salesmanship. Comparatively few people who have pictures made think themselves of having any kind of a reproduction or improved pictures produced. The matter must be suggested to them by the photographer.

In order to make such suggestions easy and productive of results there must be samples at hand to show the customer. There should be a following up of the suggestion. It will rarely be enough to show the patron, when getting his pictures, the sample enlargement and suggest his having a similar one made. It will be necessary to call his attention to the matter perhaps several times. This may be done when he is seen, but instead of waiting to see him, send a short letter from time to time about the matter. Keep it before his mind and in the end he will be likely to buy.

Commercial photography has become sufficiently important so that many photographers make a specialty of the work and find it very profitable. This work includes many forms of photographs. They are sold largely for publication in various periodicals.

Pictures of any form of disaster have a ready sale to newspapers and sometimes to weeklies, if they are prepared quickly and if they are typical or striking in some way. Also there are always a lot of people ready to buy photographs of a disaster while it is still fresh in mind, particularly if they have themselves been involved in it.

Pictures of natural objects of the freak sort, or of works of construction of importance, finds a ready sale. Pictures of animals, of alluring natural scenes, land or water, are salable for post cards or to calender makers or country life publications.

Pictures of stores, show window displays, store interiors, shopping crowds, etc. are salable to trade papers. There are booklets published that tell how money is to be made from commercial photography and it will pay any photographer to read them.

(Editor's note. "Cash and the Camera", A .S. Dudley, Phila., Pa., $1, and "Marketing Photographs for Publication," Tennant & Ward, N. Y., 25 cts., are valuable.)

There was a time when most photograph galleries made it their business to carry a line of local views in 5 by 7 or 8 by 10 size, and these had a profitable sale. The post card, however, has superceded these views. But the photographer can still make local views pay him if he will get in touch with some house making high class enlargements and keep a few of those on hand of the best local scenes.

These local pictures in black and white, or in a sepia, make very effective framed pictures in a 16 by 20 or similar size and they will sell for Christmas, Easter or wedding gifts. When the

customer has some particular view he would like enlarged, if no good photograph is available, it is easy to go out and make the picture.

Good photographs of children can be made in the home. There are a few studios that have made a feature of home photography, sending an operator anywhere desired to take pictures of people who want the home surroundings or who cannot conveniently come to the studio. This kind of work calls for experience and patience. It should bring good prices.

The man who will do this work cheerfully and who can do it well can secure a reputation that will enable him to get all of the work of the kind he can do.

Children's portraits of this sort are most successful and the idea of having the children's pictures taken without having to get them to the photographer's appeals to the mother very strongly. It is a good deal of an effort to dress up a child and get it to the photograph gallery and keep it good natured until it is time to expose the plate.

Home photography offers a field that is not overdone in the professional class.

There is in the city a little opportunity for scientific photography and a photographer may ally himself with professional men to secure this work among doctors, lawyers, chemists, dentists, oculists, etc. This work should pay a high rate. It requires a high grade of technical knowledge to secure results with it.

In whatever way the photographer sees fit to break away from the beaten paths of the studio he will find opportunities. There is money in any sort of honest side line, but it requires perhaps more care to extract it.

The proper handling of a side line or branch of the studio work will not infrequently make it into the main work of the proprietor. In any event it pays to look after the branches and offshoots of the regular work.

Previous Articles, "The Man and the Location" (Oct.) "Buying and Arranging the Stock" (Nov.) "The Treatment of Customers" (Dec.) "System in the Studio" (Jan.) "How to know the Profits" (Feb'y) Credit and Collections (March) Subject next month: "Advertising You Can Do

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TO THINK OVER

There are too many people telling you how to do it, and too few who do it themselves.

There is much truth in this, and yet it would be bad for us all if the preachers stopped, because they were unable to follow their own advice.

Few great inventors have profited in real coin as a result of their inventions. Yet each new invention is a sermon on how to improve some effort.

Every man, no matter how humble, has the spark of God-given genius. He has some message for his fellowmen, and if he fails to propound his views, much may be lost.

It is better to waste a thousand words than to let fifty words of benefit go unspoken.

A man may preach in the woods, and a multitude may follow to hear him. Another may preach in a crowded thoroughfare, and few will listen.

It is the prerogative of every man to heed or hike as the message is passed along, but he who heeds and thinks, he who has the capacity to pick out the helpful thought, is the man who grows and does things.

The open mind gets the suggestion, weighs it, and turns it to account.

A. BOOSTER.

FERROTYPE PHOTOGRAPHY

BY GEORGE SMEE

At the seaside resorts if there is one kind of photograph that holds sway where the picture is taken and delivered in a hurry, when everybody feels happy and in a mood for anything jolly, that photograph is the ferrotype or tintype as it is more familiarly known.

How often it occurs that a tintype is the only portrait that remains of some person who was near and dear to everyone who knew them. Who has not in their photographic career had a tintype brought to be either copied or enlarged, many a good paying order has been received by the professional photographer which otherwise he would not have received except for the tintype. For those who wish to enter this exceptionally profitable line of photography as practised at the seaside, a description of the process given here will meet any requirement. As to the color of the light used in the operating tent, a deep yellow is the color, not ruby, yellow light does not act upon the collodion film, while with ruby the progress of the work cannot be observed, besides it is not necessary.

The best collodion for ferrotypes differs in the kind of salts and quantity for positive making, the usual negative collodion employed by photo-engravers is not suited for this work, although it can be used, the color of the finished image is not so white as that produced by a collodion made for the purpose.

Positive Collodion for Ferrotypes.

(The measure in ounces for all the liquids means fluid measure, the solids, avoirdupois).

Sulphuric ether, 0.725	10 ozs.
Alcohol, pure, 0.805	5 ozs.
Soluble cotton (pyroxyline)	100 grains

By vigorous shaking the cotton will dissolve.

Positive Iodizer

Alcohol, pure, 0.830	5 ozs.
Cadmium iodide	50 grains
Ammonium bromide	25 grains

As soon as the salts are dissolved add the whole to the collodion, this will form the iodized collodion.

Nitrate of Silver Bath.

Recrystallized nitrate of silver	2¾ ozs.
Distilled water	40 ozs.
Nitric acid, C. P.	10 drops
Iodide of ammonium	12 grains

Iodide of silver will be formed by the last addition; it should be shaken well until the iodide of silver has dissolved, when the bath should be permitted to stand for about twelve hours before use.

Iron Developer.

Distilled water	20 ounces
Protosulphate of iron	300 grains
Glacial acetic acid	1 oz.
Alcohol	1 oz.
Nitric acid	10 drops

Double the above quantity of this should be made up as it works so much clearer when slightly aged.

Fixing Solution

Cyanide of potassium	2 drams
Water	12 ounces

Ferrotype Varnish

Gum Dammar	80 grains
Benzole or benzine	4 ounces

Benzole from coal tar is the best solvent, if this cannot be obtained a good quality of benzine can be used, dissolve the gum and filter. The collodion, too, must be filtered after being iodized, or let stand until all specks have subsided.

A glass dipping bath with a hard rubber or glass dipper is necessary, they can be bought at any photographic dealer's, also a proper collodion pouring bottle. The fixing solution, although

considered as highly poisonous, is quite safe in use, providing it does not come in contact with a sore of any kind, especially a fresh cut or scratch—any worker will be careful as to this.

A camera and lens or lenses must be purchased for this class of work. They are made so that the nitrate of silver solution will drip into a gutter made in the dark slide. The ferrotype plate is prepared by pouring on the iodized collodion, draining all the excess at one corner into the collodion bottle, then by a touch of the finger, lightly rub the collodion all around the exposed metal edges; this will protect the metal edges from being attacked by the nitrate solution, place this upon the dipper, lower it into the bath, under yellow light only, in less than one minute it will be sensitized ready for the exposure, place it into the dark slide, facing the back of the lens, place a glass plate at the back, this will resist the spring on the door and keep the sensitized plate in position. Make the exposure and develop by pouring a small quantity of the developer quickly over the surface (use no tray), the image will appear and development be complete in less than half a minute, wash the plate in a soft stream of water, pour the fixing solution on from a small, wide mouthed bottle, return the liquid to the bottle, pour over the plate again, the image will clear up with fine whites and blacks. The whole operation of fixing will take only 15 to 20 seconds. Wash the plate with care so as not to release the film, then dry with a gentle heat—the flame of an alcohol lamp will do—wave it in the air to cool it and coat it with the cold dammar varnish, the tintype is now complete with the exception of a metal frame or paper holder.

The whole process is embodied here. Any one can work it as a separate branch of the photographic art, and earn a good deal of money by its practice. I have known for a fact in one case where a man, who made real good ferrotypes, to earn as much $50 in one day, the general run being $20 to $30 per day upon the sands of a seaside resort. The process is simple, the results good, and the returns quick. No proofs, no fault finding, no retouching; both customer and photographer are satisfied. It will be advisable to always have double the quantity of nitrate of silver solution ready, so that if the bath goes wrong, the standby can be used at once, the old bath being placed in the sunlight to deposit impurities, when it may be filtered, strengthened, and made ready for use again.

THE REFRACTIVE PROCESS OF COLOR PHOTOGRAPHY

BY E. J. WALL, F.R.P.S.

Syracuse University

I AM always loth to coin a new formula or a new title for an old process, but I think it is legitimate in this case, because the processes to be described have no particular title, and also because they may be considered to be intermediate between the dispersion and diffraction processes, which are purely optical, and the screen-plate processes, which are purely absorptive. For although color absorptive filters are used they are placed in the diaphragm plane and not in contact with the sensitive surface, therefore the result is partly due to the formation of an optical image and partly to absorptive processes.

The first suggestion, which outlines such a process, appears to have been made by Liesegang (1), for an article dealing with the linear screen method he says:

"A modification of Joly's process is the use of a diaphragm with apertures, each of which is covered with a yellow, blue or red gelatin film. In order to explain the action of these diaphragms, it is necessary to bear in mind that each aperture of a cross-lined screen acts like a pinhole camera, that is to say it reproduces the diaphragm aperture exactly. When using a square stop the dots in the negative are square, with triangular stop, three cornered, etc. If a diaphragm is used with several holes, the negative image, with sufficient separation between the screen and the plate, has not the same number of holes as the screen but as many more as there are holes in the diaphragm. Of the three component points of the half-tone negative one will always be produced by blue, another by red and the third by yellow light. In order to convert the negative thus obtained into its natural colors, a grained plate must be prepared with red, yellow and blue points, which must fit the positive made from the negative; also the transparency can be projected through the three-colored diaphragm."

This is a clear exposition of the principle, and the fact that Liesegang suggests the use of red, yellow and blue, and not the correct taking colors, cannot rob it of its priority.

In the following year J. A. C. Branfill[2] says:

"The plan I propose is to employ a diaphragm in the lens, with four openings suitably arranged, three of them covered with the primary colors, and the fourth left clear, each approximately proportioned in size to the respective exposures required. If a somewhat coarse half tone screen be used, I should expect to find represented through each opening (at a certain distance) a group of dots, each of which would be rendered in accordance with the color of the original. In order to print on zinc, etc., from such a negative, it would be necessary to block out with a screen of the same scale as that originally used, three of the four dots, in each group (this to me would seem the most difficult part of the process but I think it might be done), and the resulting plate would form one of the three color blocks. Four blocks thus made would represent the three colors and a key, which might be printed in black or grey according to taste. This plan only requires one negative, and by correct registering, each dot would be separate from the next, unless strongly lighted, when it might overlap its neighbour at the edge."

Dr. W. Giesecke of Leipzig, took out a German patent[3] in 1899, now void, which whilst designated by the inventor as a linear process, is obviously a refraction process, or can be used as such; and because of the theoretical considerations given is worth inclusion as a whole:

"For the reproduction of a colored picture it is well known that Ducos du Hauron suggested the use of a screen plate with regularly repeated yellow, red and blue lines. This process, so far as the inventor knows, has not yet, however, been practically adopted, as the preparation of the colored line screen is very difficult. Many other suggestions have therefore been made in order to decompose the bundle of light rays proceeding from the object into three fundamental colors, or three color tones, lying 120 degrees from one another in the color circle. Thus it has been suggested to use a three-colored diaphragm in the lens simultaneously with an ordinary cross line screen of black and white lines. (Compare Eder's Jahrbuch, 1897, p. 487[4]). If one pictures to onesself that every opening of the screen acts like a pinhole camera, it will at once be seen that with correct

[1] Phot. Archiv., 1896, p. 250.

[2] B. J., 1897, p. 142.

[3] D. R. Pat. 117598, 1899.

[4] This refers to the above-mentioned article by Liesegang.

fig 1

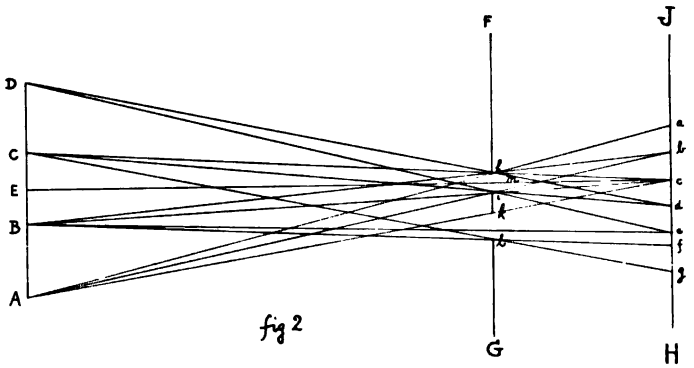


fig 2

choice of the dimensions the rays coming through the stop and decomposed by the same into the three fundamental colors, will be projected on to the sensitive surface without again mixing. Therefore this process from a theoretical standpoint appears to be free from error, even if it cannot be considered as generally practical as described. The inventor has consequently submitted to a close research the combinations which are possible by the use of a three-colored diaphragm and a cross-lined screen, and has succeeded in establishing that only under absolutely fixed conditions can a positive issue be obtained. For the particular case kept in view by the inventor, square diaphragms, the colored parts of which form equal rectangles, are the most suitable, in conjunction with simple screens consisting of opaque and transparent lines. If with such a system the breadth of the diaphragm AB, fig. 1, and the focus of the lens are assumed to be constant, there are many possibilities as to the path of the three-colored light-cones through the screen apertures, according to the distance of the sensitive plate from the screen and according to the ratio of the breadth of the transparent to the opaque screen lines. The inventor has now found out that of all the cases in question, one deserves special notice as it permits a perfectly regular and equal distribution of the three colors on the negative plate. This is shown in fig. 2. In this figure, *AD*, represents the colored diaphragm or the objective carrying the same; *GF* is the screen with transparent lines *h i* and *k l* and the opaque line *i k*, and *H I* is the sensitive surface or the ground glass screen. The rays proceeding from individual colored parts of the diaphragm and passing through the screen apertures *h i* and *k l* are reproduced on the plate from *a* to *e;* and if *A B* represent the blue, *B C* the red and *C D* the yellow parts of the diaphragm, the blue rays fall at *a c*, the red at *b d* and the yellow at *c e*. Thus each bundle of rays covers half of the next one, that is the blue covers the red over the distance *b c*, and the red covers the yellow over *c d*. Further the blue rays passing through the second screen aperture *k l* cover one-half of the yellow rays passing through *h i* and the red rays passing through *k l* cover the other half of the yellow rays. So that on the photographic plate the pictures of the three partial diaphragms *AB, BC, CD* are each superimposed as to one-half and there is an admixture of the colors so that the three fundamental colors red blue and yellow do not act, but their complementaries, green, orange and violet, and if in place of the plate a ground glass is used, there will appear a line system formed of the regularly repeated colors complementary to those of the diaphragm. So that the rays proceeding from partial diaphragms shall take the above described paths, the following conditions must be fulfilled with a given diaphragm and given focus it is first requisite that the limiting rays of the blue, red and yel-

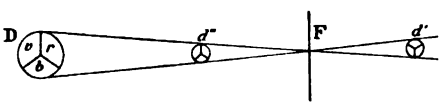
low beams *Aa, Bb, Cc, Dd* on the one hand, and *Ab, Bc, Cd, De* on the other must cut one another in one and the same point. and the resultant points of intersection must coincide with the end points of the screen aperture *h* and *i*. There are then formed simultaneously the two triangles *hci* and *Bbc* and as they are equal to one another

$$\frac{mc}{Ec} = \frac{hi}{BC}$$

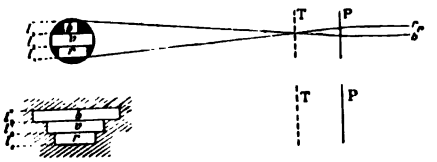
or since $BC = \frac{1}{3}$ of the total diaphragm breadth

$$\frac{mc}{Ec} = \frac{3hi}{AD}$$

mc being the screen distance, *EC* the focus, *h i* the screen aperture and *AD* the breadth of the diaphragm. It thus follows that the screen distance must be equal to three times the screen aperture, multiplied by the focus of the lens, divided by the breadth of the diaphragm.

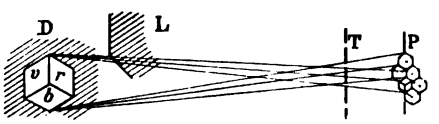


This is one condition for the occurrence of the above mentioned superposition of the colored beams. The other condition is that the opaque screen lines should be twice as broad as the transparent. So that the rays passing through the adjacent screen aperature *kl* shall coincide as to one-half with the extreme rays passing through the aperture *hi*, shown on the ground glass by *c* to *e*, it is essential that the extreme ray proceeding from *A* should fall at *d* in the middle of the beam *ce*. The point *k* where this limiting ray *Ad* cuts the screen gives the limit of the opaque screen line which is therefore designated by *ik*. Since, however, the triangle *CdD* is similar to the triangle *hdi* and the triangle *adCe* equal to the triangle *idk*, the result is that *ki* is to *ih* as *Ac* to *Cd* or as 2 : 1. Therefore the opaque screen line must bear the ratio 2 : 1 to the transparent line. The above theoretical consideration does not absolutely agree with practice, as the phenomena of diffraction of the light rays and the solarization of the photographic plate have not been taken into consideration consequently in practice there will be small variations from the theoretical hypotheses. Thus, for instance, the use of a cross-line screen to obtain the same effect is not out of the question, provided the three-colored diaphragms are sufficiently long to give the sensitive surface an image split up into lines."



The remainder of the patent deals with questions as to plate sensitiveness, etc., with which we are not now directly concerned; and further an erroneous conception of the Joly process that we can ignore. Theoretically Giesecke's process is extremely pretty and the idea of forming the correct taking colors by superposition of red, yellow and blue, quite fascinating. Only, unfortunately, blue plus yellow light does not make green but white, and red plus blue makes a whitish pink or whitish crimson: only in the case of the mixture of yellow and red is he right, and this merely because all yellow light must contain green. His term "solarization" of the plate is obviously what we should now call halation or irradiation.

Another patent embodying all the points of Giesecke's is that granted to Jan Szczepanik[5]. This was applied for in England on April 12 ,and Giesecke's on May 30, 1899, in Germany.



R. Berthon[6] patents the use of a lens diaphragm with three apertures, respectively covered with red, green and blue-violet screens and a sensitive surface on

[5] E. Pat. 7729, 1899.

[6] E. Pat. 10611, 1909. U. S. Pat. 992151. D. R. P. 223236.

a support the other side of which is impressed with hemispherical, transparent refraction protuberances, which act like microscopic lenses. There would thus be formed on the sensitive surface an image of a three-field diaphragm. Or the colored screens of the diaphragm may be apportioned into a series of microscopical parallel transparent lines, colored, of course, then the lenticular forms next the plate may take the form of cylindrical ridges, and the opaque striations of the diaphragm must be inversely proportional to the lengths of the fundamental waves of each colored screen; thus their number must be such that their linear projection on the sensitive film gives at least sixteen lines per millimetre in the case of the red, nineteen in the case of the yellow-green and twenty-two for the blue-violet. A positive may be made by contact from the negative thus obained or the latter may be reversed and the resultant positive viewed through the lens and an image in colors will be seen or it it may be projected.

This is practically a modification of an idea of Lippmann's combined with the colored diaphragm.

In the current issue of *La Photographie des Couleurs* (7), M. Jaques de Lassus Saint-Geniès claims as new, a process, which is so obviously on the same principle as those above described, and for which he has been granted a patent, and I have thought it well to put on record a few facts about this particular process of color photography so that there may be no question as to priority and what is and what is not patentable. For in the field of color photography I have found after many years research and collection of all patents and abstracts on the subject that old ideas crop up and are patented or exploited with, in some cases, detriment to the advancement of this particular branch of our art.

[1] La Phot. d. Couleurs, 1913, p. 149. Fr. Pat. 459566, granted Sept. 10, 1913.

M. Saint-Geniès proposes the use of diaphragms of either of the forms shown in figs 1 and 2, with a cross line screen, about 1 or 2 millimetres from the plate. Or of the form, shown in fig. 2 with a line screen. For projection the principle of the apparatus is merely reversed, a light being placed behind the positive.

It is quite possible that a practical process of color photography might be evolved on these lines. It would be necessary first of all to use a compensating filter that should reproduce colors in their correct visual luminosity in conjunction with the tri-color diaphragms, taking into consideration the color sensitiveness of the plate. It is here that a grave difficulty would arise, because bathed ponchro plates would have to be used and these notably differ in their sensitiveness to red, green and blue respectively in different batches. Nor could this be compensated for by varying the areas of the colored diaphragms, as Saint-Geniès suggests.

In the second place, one would have to use a somewhat slow emulsion, free from fog and irradiation or halation, otherwise the separate images of the individual diaphragms would blend and one would have incorrect color rendering. This would probably mean an emulsion of about 40 Hurter & Driffield at the most. Then the black and white screen would practically reduce this to 10; and the color diaphragm and the compensating screen would reduce this still further, at least 10 times. So that the final practical speed of the plate would be about 1, that is about one-fourth of the Autochrome and one-eighth of the Paget color plate.

Thirdly, there is no means of reproducing the results so that they can be seen save in the original or a similar apparatus; and this is the most serious obstacle, when considering this method from the commercial practical standpoint.

SIXTEEN PRINTS

BY

ALICE BOUGHTON
NEW YORK, N. Y.

(WOMEN'S FEDERATION
P. A. OF A.)

CHILD WITH CRYSTAL

BY ALICE BOUGHTON

NEW YORK

GREAT-GRANDMOTHER'S WEDDING DRESS

BY ALICE BOUGHTON

NEW YORK

THE LITTLE POOL

BY ALICE BOUGHTON

NEW YORK

RAIN

BY ALICE BOUGHTON

NEW YORK

EDITH WYNNE MATTHISON

BY ALICE BOUGHTON

NEW YORK

C. RANN KENNEDY

BY ALICE BOUGHTON

NEW YORK

ROSE GARDEN AND PERGOLA

ROCKEFELLER GARDENS

BY ALICE BOUGHTON

NEW YORK

MOTHER AND CHILDREN

BY ALICE BOUGHTON

NEW YORK

"PRUNELLA" PLAYERS

BY ALICE BOUGHTON

NEW YORK

"PRUNELLA" PLAYERS

BY ALICE BOUGHTON

NEW YORK

SAND AND WILD ROSES

BY ALICE BOUGHTON

NEW YORK

SUNSHINE

BY ALICE BOUGHTON

NEW YORK

HEALING THE BLIND

BY ALICE BOUGHTON

NEW YORK

TRANSLATIONS AND ABSTRACTS

BY E. J. WALL, F.R.P.S.

A NEW SENSITISER—Dr. E. KÖENIG

If one glances through the photographic literature of the last century the researches of numerous workers will be found dealing with the action of dyes on silver bromide, all being based on the epoch-making discovery of H. W. Vogel. As most of these workers were without sufficient knowledge of the chemistry of dyestuffs they used at random the dyes employed for dyeing, without question as to their chemical constitution and without knowing whether those dyes were single dyes from the chemical point of view. This empirical method of research had one good result, and there were found in the different classes of dyestuffs some that could for the time being be looked upon as useful sensitisers. As red sensitisers—and these were sought for most—woolblack and ethyl-violet were repeatedly recommended and used, the former for gelatine and the latter for collodion emulsions.

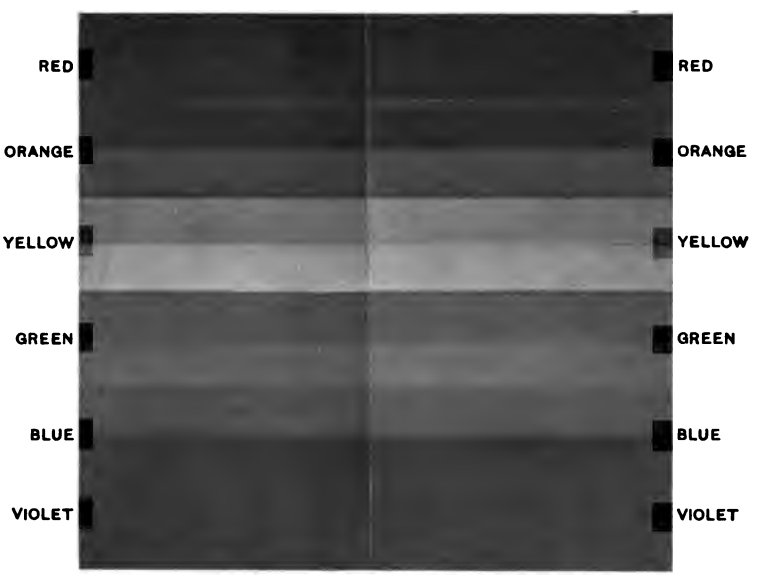
In 1913 Miethe found in chinaldin-ethyl-cyanin, which had been known for years, a marked sensitiser for green, yellow and orange and introduced this dye commercially under the name of ethyl-red. In spite of the defective action of this dye for the pure red (the sensitiveness reaches to about D ½ C) it was a distinct advance. Through Miethe's discovery was given that impetus that resulted in the discovery of real sensitisers. Orthochrom, pinachrom, pinacyanol and homocol are the chief fruits of this research; these dyes have completely supplanted the older red sensitisers; only erythrosin and eosin are used as before as marked greenish-yellow sensitisers. The isocyanines are distinguished from the older dyes in that they possess several sensitising bands and sensitise for green, yellow and red, so that they may be used by themselves for the preparation of panchromatic plates. The older lepidin-cyanin sensitised only for red and yellow, and chinolin red and eosin only for green and yellow.

Various theoretical and practical authorities laid with great correctness considerable value on being able to use one, that is a panchromatic plate for all three exposures in color work. In the modern screenplate processes one is forced to work in this way. It is, however, improbable that one dye, one from a chemical point of view, should be able to sensitise simultaneously sufficiently for red, yellow and green. As a matter of fact the orange sensitiveness of ethyl-red or orthochrom plates is not sufficient to reproduce deep red tones in color photography, also pinachrom, which is much better, is wanting in difficult cases, and only by the use of pinacyanol is a satisfactory result to be obtained. Pinacyanol is the best red sensitiser that we have hitherto known, and completely satisfies the requirements of ordinary photography. Only for scientific work, in which a sensitiveness for the extreme red, is a new dye, pinacyanol blue to be preferred. Unfortunately with pinacyanol the green sensitiveness is entirely absent and therefore such plates cannot be used for the green filter exposure nor for panchromatic plates. The natural thought is to use a mixture of pinacyanol with orthochrom, ethyl-red or pinachrom. But curiously enough the two dyes act most unfavorably on the sensitising power in that a plate sensitised with a mixture has neither the sensitiveness for red that a plate treated with pinacyanol alone, nor the green sensitiveness of the pure isocyanin plate. This phenomenon recalls to some extent the well known fact that in dyeing, dyes which belong to different chemical classes combine to much less satisfactory compound colors than those closely allied chemically. In our case pinacyanol is not a true isocyanin, for its aqueous solution is much less easily decolorised by dilute acids than a solution of ethyl-red or pinachrom

We assumed in any case that a true isocyanin of equal red sensitising power as pinacyanol would combine much better with the isocyanin and have been continuously trying to find in the true isocyanins a better red sensitiser than pinachrom. That the green sensitiveness would suffer some loss with increase of the red sensitising we were already convinced. After many laborious researches Dr. Staehlin has quite recently discovered how to prepare a true isocyanin that is absolutely equal to pinacyanol in its red sensitising power. This new dye, which we have named pinachrom-violet can, as a matter of fact, be much better combined with orthochrom or pina-

RED FILTER EXPOSURE

GREEN FILTER EXPOSURE



A NEW SENSITISER

chrom than pinacyanol and then gives panchromatic plates, which have the same green and a much greater red sensitiveness than pinachrom plates. The absorption spectrum of pinachrom-violet, in alcohol, consists of a broad band with maximum from 620 to 590 which then gradually fades off to 550$\mu\mu$. The absorption spectrum of pinacyanol in alcohol shows two sharp bands, one 620 to 590, the other from 570 to 550$\mu\mu$, the absorption spectrum of pinachrom shows also two bands, a strong one from 590 to 550, and a weaker one from 540 to 510$\mu\mu$. Pinachrom-violet is from its formation undoubtedly a true isocyanin and therefore very sensitive to acids. If the alcohol solution is diluted with much water, the carbonic acid in the air is sufficient to convert the blue-violet color into a pale red, on the addition of acids there is further decoloration (1).

It is used exactly like pinachrom. For making panchomatic plates we recommend the following bath:—

Alcohol	100 ccs
Water	200 ccs
Pinachrom-violet 1: 1000	3 ccs

Orthochrom, pinaverdol or pinachrom 1: 1000 3 ccs, Three minutes, no washing.

The reproductions of the color chart show the action of a plate sensitised in the above in comparison with the older plates. The two plates were exposed side by side. With the red filter exposure the considerably higher red sensitiveness of the pinachrom-violet is clearly seen in the top deep red fields and especially in the violets. The blue and violet rays reflected from the violet dyes are absorbed by the red filter, so that only the longwave red rays act. This shows clearly the great superiority of the new sensitiser over pinachrom.

The result through the green filter shows the better green sensitiveness of the new panchromatic plate over a mixture of pinacyanol and orthochrom. The defective rendering of the greens has as is well-known always been one of the wonders of photography. Our best green sensitisers, ethyl-red, orthochrom and pinachrom are really useful so that one ought not to reduce their action by any addition.

We are permitted to hope that we may be able to report at some future time as to advances as regards green sensitisers, as on these all our work in the future will be concentrated, as the present red sensitisers satisfy all the requirements of practice. Phot. Rund, 1914. p 49.

(1) Dr. Koenig states that even in this condition the solution may still be used. The importance of this discovery is hardly to be underrated, nor his promise that new green sensitisers are now to be the aim of the chemists of the famous Hoechst dye works. His remark as to the decolorised dye solution being still useable naturally recalls to one's mind the experiments of Weissenberger (Phot. Korr. 1886 p. 591), he acidulated cyanin solution with acetic acid, thus decolorising it and bathed plates therein in a comparatively bright light as there was no red sensitiveness, but as the plates were dried the acetic acid evaporated the cyanine was regenerated and good color sensitiveness was obtained with freedom from fog (see also Hinterberger, Phot. Korr. 1896, p 131). The importance of this is that one can use a reasonable amount of light to work by, and yet on drying full red sensitiveness is secured, possibly this may interest the maker of panchro plates more than the user, but as an acid bath is so frequently recommended now as a preliminary to the development of panchro and screen plates we may hope that by the use of the new sensitiser we may yet be able to work these plates in a reasonable amount of illumination.

E. J. W.

The Raydex Color Process

Welborne Piper describes this process as follows:— bromide prints are made from the three constituent negatives, care being taken to cut the paper the same way so that they may have an equal stretch, they should be exposed for the same time, the correctness of this being judged by the print from the negative taken through the green screen. When the prints are finished they should be soaked in water whilst the color sheets are being prepared, which is done by soaking them in water and then immersing for two minutes in a special solution, rinsed and brought into contact with the bromide print under water, squeegeed together and put on one side for twenty minutes. The two are then pulled apart, the broimde print being washed and the color sheet being squeegeed down to a sheet of waxed celluloid. After ten minutes the celluloid and the adherent color sheet are immersed in water at 110 deg. F. and developed like a carbon print. The other two color prints are obtained in the same way and transferred one on top of the other, the yellow being at the bottom and if necessary transferred to a final support.—*B. J. Color Phot.*, 1914., p. 5.

This is nothing more than the ozobrome process applied to three color work. In conjunction with Manly I made such prints about 1907. The chief trouble we found to be the unequal expansion of the paper.

The Half-Watt Lamp

Recently before the Croydon Camera Club, Mr. W. H. Smith showed some portraits obtained with this new lamp of 2000 candle power and with a tracing cloth diffuser four feet from the sitter he was enabled to obtain fully exposed negatives on a rapid plate in from one-third to one-half a second. He had also tried it for printing and thought that at about four inches from the center of the bulb the printing efficiency was about that of diffused summer sunlight.—*B. J.*, 1914. p. 135.

EDITOR'S TABLE

The Progressive Photographer.

THE progressive man's development is very easily traced. He walks down the street to look at the other man's show case, and he gets an idea. There are lots of ideas in showcases. He goes back home and arranges his showcases to go one better. And so he and his neighbor go on, one against the other, until both those showcases are well worth looking at. They have been busy in other directions at the same time, and it turns out at last that instead of one coming out on top they are both going ahead. Then one suddenly finds to his astonishment that he has a few dollars in hand. He runs down to New York, or San Francisco, or wherever his town may be, and brings back an idea or two. There is no need to migrate to a big city. There's lots of room for good work in smaller towns. To think that the big city is the only place for real success is one of the greatest mistakes possible. But a man needs fresh ideas and up-to-date suggestions in order to get out of the ruts and to progress. Now there is coming one great opportunity for every photographer in the land who wants to better his condition and progress along the lines of real success. The National Convention at Atlanta in June will give American photographers one big opportunity. Are you going? Do you know it is going to be a glorious success in every feature and will help *you* toward greater success. The Southern boys have it in hand this year and they're not asleep down there. Far from it! If you rub shoulders with fifteen hundred fellow-workers you cannot help being improved. You do them good, and they do you good; such is the way of good fellowship and uplift of the Convention.

It will cost you solid cash to go, and the convention will give you solid cash in return. But if you think you can't afford to go, remember that you are just the man who cannot afford to keep away. There is not a single really successful photographer—and we mean successful financially—who is not a wide-awake man. The livest men in New York to-day are the most successful men. They know everybody's work and they keep in touch with the latest. The only way for a man seeking success is to go to the convention. If a visit does not pay him handsomely in pleasure and in profit, he must be a very unfortunate and very uncommon person. Consider it a necessary investment—and go.

To The Struggling Ones.

WE WISH to address a few words to the photographers who have been struggling for reputation and position in art for years without seeing much fruit of their endeavors. Whoever you are and have been working in this way for so long a time, your efforts are somewhat misdirected. Be sure of one thing, you will never achieve success by concentrating your thoughts and energies wholly upon chemical manipulations, or by the mechanical execution; you must reach beyond that. Every photographer in business for himself is supposed to be fairly up in such matters. Photography is four-sided: mechanical, artistic, financial, and business. It requires a combination of talents to become a successful photographer. To this end the mind must be cultivated and enlarged in different directions; devote some time to the artistic side, study good models of

sculpture and painting, and you will cultivate a love for the beautiful, and come to feel that there is a beauty of form and expression in the common-place subjects that pose every day, which were not visible to you before.

Do not think it lost time cultivating the acquaintance of men much farther advanced in art and in all departments of photography than yourself, but improve all such opportunities, and make the most of them. Nearly all leading photographers are ready to impart information, and if they always understood with what avidity, and in many cases gratitude, the reception of such knowledge is received, they would feel doubly repaid by the conscious pleasure of doing others good by imparting light upon a subject so vital to themselves. Directly in this line are the photographic societies, and young photographers especially have only themselves to blame who can and do not avail themselves of such opportunities for improvement and advancement.

A photographic gallery to be a success should be managed in a common-sense, practical way, and run on business principles. Remember that there is an end to be obtained in all business, and in this practical world it consists in part in obtaining a reasonable renumeration for your services, both on your own account and for those who are dependent upon you. Therefore it is not consistent to make pictures mainly because you love to, but as an honorable calling, which you in turn mean to honor, by which to live and obtain respect and position. By earnest endeavor and well-balanced motive underlying your efforts, few will fail to reach a reasonable degree of success.

PHOTOGRAPHY IN GREAT BRITAIN

A Review of the Month from our own Correspondent

London, March 3, 1914

THE recent explosion of an oxygen cylinder, attended with loss of life, aboard the liner "Mauretania," brings forth a significant warning to those engaged in professions or industries involving the use of compressed gases, and photographers and lanternists, particularly the latter, will be well advised to exercise especial care in connecting and disconnecting cylinders with the burners. Apparantly, from the jury's finding, the fatal cylinder left the manufacturer's warehouse at Manchester charged both with coal-gas and oxygen, and although no culpable error in handling the cylinder aboard the vessel is mentioned it is plainly stated that the steamship employees were attempting to fit an adaptor to the cylinder when the explosion occurred. Almost without exception the first proceedure of a photographer using lime-light as an enlarging illuminant or a lanternist fixing up his jet is to make an improvised connection with a piece of flexible tubing, an operation which often means considerable risky tampering with the mouth of the cylinder.

Scottish Pictures

THE eleventh Scottish National Photographic Salon was opened in Aberdeen a fortnight ago and furnishes abundant evidence of the popularity of the landscape study at exhibitions. Quite seventy-five per cent. of the exhibits consisted of landscapes and many beautiful creations were hung, the most notable perhaps being those of two well known Scottish workers—James McKissack and J. M. Whitehead. In the aggregate nearly 300 exhibits were hung, bromide and bromoil being far away the most favoured media. In the matter of combining some attractive social function in connection with photographic exhibitions a valuable wrinkle may be culled from the programme of the Aberdeen show. Each day the exhibition was open, the women members of the various societies arranged an informal tea party to preceed each night's lecture. The innovation was a distinct success and no doubt was the means of inducing many occasional visitors to remain for the evening's lecture. Another pleasing feature was the cordiality extended to distant visitors, most of whom were met at the railway station by deputations from the Committee and personally conducted through the exhibition galleries.

Landscapes also dominate an interesting exhibition of Scottish pictures now being held at the Little Gallery in London under the auspices of the Scottish Photo Pictorial Circle, a new body.

The Royal Photographic Society

THE past month has seen another annual meeting of Great Britain's leading photographic organization. The main outcome was the election to the presidential chair of Mr. Farley Lewis, a fellow of many years association with the "Royal" and its work. Dr. Atkin Swan, has been appointed a vice-president along with the Duke of Newcastle while the new members of the Committee are Messrs. E. O. Hoppe, the distinguished portraitist, Adolphe Abrahams, a leading authority on high-speed photography, and two other workers of repute, F. T. Hollyer and T. E. Freshwater. Whateer changes in administration are effected in

the R. P. S. by the new Committee it is more than evident that its finances require rapid reorganization. The treasurer stated at the meeting that each member cost the Society a matter of sevenpence (14c.) over and above his regular subscription and this remark was provocative of a suggestion to close the refreshment department after meetings. The major expenditure in the Society's account book is the annual exhibition. At the last exhibition held in Autumn in London, trade exhibits which were paid for substantially were vetoed entirely, so the question confronting the Committee again, is the advisability of including in the next exhibition a trade section. From a purely artistic standpoint precedents rule that it is not advisable. "One never sees an advertising display or artists' materials at the Royal Academy," argued one indignant member, while another pointed out that the London Salon managed to exist without trade exhibits and to show a substantial profit upon its last exhibition. If I may venture a personal opinion I should say the circumstances are strongly in favour of the reinstitution of the trade-exhibit section at this year's show. Not for one moment as a necessity or an artistic acquisition. Commercialism and art never do go well together. But it is simply a case of needs must when the "devil" drives.

Records in Plate Speeds

An ordinary dry plate with a tested speed of 500 H. & D is certainly something worthy of notice. For five or six years British manufactures have marketed plates with various sppeds from 300 downwards, but two years ago the diverse exigencies of the newspaper photographer along with a marked revival in winter work caused a demand for plates of greater rapidity. The Humiere Co., appear to have been the first to respond with their violet label plate with a speed of 400 H. & D. Then came the Barnett Company's super-speed plate with a similar speed along with a host of others. I have, however, before me a few particulars furnished by Messrs Marion & Co., of a plate with a guaranteed speed of 500 H. &. D. and for which is claimed absolute freedom from fog. With plates of this speed and a London manufacturer advertising lenses at F 2-8 the time does not seem far distant when rapid night snapshots will become practicable.

Cracked Celluloid Dishes

Dishes made from celluloid or xylonite from the very reason of their immunity from breakage by being dropped on the dark-room floor are often subjected to rougher use than receptacles made of china. It can only be expected that at some time or other they will develop cracks if not actually break, and the amateur who desires to try his hand at repairing them will probabiy find the following method the most expedient. Procure a small quantity of amyl-acetate, the kind used for joining moving-picture films together, and dissolve in it any waste pieces of celluloid cut from roll-films until it attains the consistency of thick paste. Care must be taken to clean the celluloid so used clear of any emulsion or the adhesive properties of the paste will be impaired. Apply to the cracked or broken edges of the dish and apply two coated pieces of film, one on each side of the crack. These are to act as binders and if properly coated with the solution cannot be removed. In a few hours the dish will be as sound and watertight as when it was new.

Photography's Best Expression

"In what form does photography find its most complete expression," recently asked Mr. P. T. Mackintosh at the Edinburgh Photographic Society. Mr. Mackintosh self-answers his query with portraiture. "Take the records of the explorer," he says. "The most valuable pictures were those, not of the scenery visited but of the people seen and encountered. In the Scott expedition they were shown in portrait after portrait the ravages of cold and hunger in a more striking and realistic manner than could have been conveyed by views."

Drying Negatives By Hot Air

A Perplexing operation with those engaged in the rapid production of negatives is the drying process. Press photographers, many of whom in face of this alleged bugbear prefer to make their prints by the untidy process of compressing negative and paper together while wet, have most to complain of in this respect. Furthermore, prints made in this manner are apt, more often than not, to exhibit uneven blobs after development, due to particles of water collecting or running down the glass side of the negative while printing is in progress. Hot air has been advocated as a remedy, times without number by many amateurs and professionals, but the great drawback to the application of heat in any form to a wet negative is the extreme susceptibility of the emulsion to part company with its support. I recollect hearing Mr. J. H. Gear mention at the Royal Photographic Society about a year ago that if an electric blower be placed about four feet away from the drying rack and the air regulated to a temperature of 50 deg. F., the drying of the negatives was only a question of minutes. It is a peculiar anachronism that a still hot atmosphere will dissolve the emulsion, yet an even hotter atmosphere when forcefully directed against it obviates entirely any disconcerting dissolution of the geletine.

The Vice of Photography

A Leading daily newspaper under the above heading deplores the tendency amongst fashionable society to be constantly photographed in a variety of poses. It is referred to as the habit of the rich English woman, who needs to be rich to keep it up in view of the high charges of the London photographer. A remarkable thing about this prevailing habit is

that the photographer as well as the clients are of the feminine sex. To obtain the combination of grace and charm which is the note of the up-to-date photograph, it is necessary that it should be taken by a woman and it is a strange fact that the personality of the operator seems to react in some occult way upon the portraits so taken, in fact to such an extent that the studios of certan women photographphers are besieged with applications for sittings. Anything $20 per dozen is charged for the pictures which, in many cases, it is conceded, are as artistically posed as the paintings many of them imitate. But the accusation of excessive charges is not levied solely against the English photographer. A very pretty English woman who recently returned from a tour in the United States says that she posed in a Broadway Studio from eleven in the morning until sunset, until several packets of plates had been exposed upon her. She evidently chose about two poses from the batch of proofs submitted to her. She received the finished prints along with a bill little short of $200.

The Fashionable Pose of the Moment

FASHIONS in poses come and go almost in unison with those of dress. The craze to be portrayed from behind the back with the head in profile has seized London with a vengeance and this style, I gather from "Wilson's" is undoubtedly an American importation. A Bond Street studio recently did forty-two of these in one day, that is to say a photographic day from ten in the morning to four in the afternoon. The "back," however, will probably not hold out much longer for there is already a perceptible change judging from the window displays and magazine illustrations. The new style is for the sitter to be taken either sitting, standing or leaning against an old fashioned leaded window broken up into several small square panes.

Candle Light Portraits

MESSRS. E. A. SALT and J. Trevor demonstrated a novelty in portrait illuminants at a recent meeting of the Croyden Camera Club by taking portraits by candle light. A lens working at F3 was employed and with no other source of light but the single candle an exposure of a minute was given. The result, according to the lecture, was astonishing, a well illuminated image although black in the shadows quite free from fog. Another effort on a plate with a speed of 350 H & D produced quite an admirable print from an exposure of 30 seconds and with the candle about 12 inches below the chin.

New Apparatus

A BROMIDE strip printing machine has just been marketed by the well-known firm of Houghton's under the name of the "Pawl." It is constructed for the special purpose of printing postcards or cabinets from half-plate negatives and is in the form of a small square table with the illuminating box sunk in the center. The printing frame possesses the fittings of most modern printing boxes with an additional attachment at the side to hold a strip of bromide paper. The depression of a single lever moves the paper into position over the negative, thus minimising the work of the operator. The apparatus sells in this country at the equivalent of $28.

High Speed Work

DR. A. ABRAHAMS told the Royal Photographic Society the other day that he did not think that there had been any material advance made in high speed photography during the past twelve years. He had often found himself that the best plates for rapid work were not those with the highest numbers. Another discovery was that work with a modern reflex camera had not the interest of that in the days when one had to overcome the difficulties in using a camera. Speaking of shutters, Dr. Abrahams highly commended the "multi-speed" between lens type which, he said, he had used immediately upon its importation from America. He approached it with every prejudice, but found it possessed of great advantages over focal plane shutters by reason of giving a more complete exposure to the plate Again, it was less liable to distortion.

Two Important Exhibitions

IT is fairly safe to state that at the forthcoming Anglo-American Exhibition to be held in London from next May to October, a large and representative collection of technical and pictorial photographs will be on view. The English sub-committee to deal with the hanging arrangements has already been appointed and consists of E. Sanger-Shepherd, chairman; Chapman Jones, Sir Wm. Abney, Sir H. T. Wood, Sir J. B. Stone, Sir P. Watts, C. Urban F. Renwick, Prof. Meldola, F. Martin Duncan, Dr. Jupp and C. F. Butler.

The annual exhibition of the Royal Photographic Society will be held this year in the last fortnight in August. American photographers contemplating submitting work may obtain entry forms from the secretary, J. McIntosh, 35 Russell Square, London. The closing date for entries is July 31.

The Kodak Competition

THE Kodak Company's ambitious prize competition has been declared this week. The first prize has been awarded to Mr. H. S. Altenroxel, of Munster, Germany, the second prize of £100 to Mr. J. E. Lawler, of Hull, the third prize of the same amount to Mlle. Lefebore, of Deux Sevres, France. Six prizes of 50 pounds each have gone to competitors in Russia, Belgium, Switzerland, Germany (2) and Austria, while a batch of smaller prizes totalling nearly 500 pounds has been distributed in practically every country in the Continent.

J. B. SUTCLIFFE.

THE WOMEN'S FEDERATION OF THE PHOTOGRAPHERS ASSOCIATION OF AMERICA

Founder and Honorary President
Mary Carnell,
3731 Spruce St.,
Philadelphia, Penn.

President.
Pearl Grace Loehr,
39½ Washington Square,
New York City, N. Y.

First Vice President
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Section IV
Ethel C. Standiford,
621 South Fourth St.,
Louisville, Ky.

Section V
Mrs. J. M. Yoder,
Herington, Kansas.

Section VI
Jean Ed. Tomlinson,
Hannibal, Mo.

Section VII
Ruth Rice,
1123 West 24th St.,
Los Angeles, Cal.

Convention Plans of the Women's Federation of Photographers

The outline of the program which has been planned for the Convention of Photographers which meets in Atlanta, Ga., June 15-20, 1914, promises much to those who attend.

Care and thought have been given to building up a program which shall give, in logical and coherent manner, work which shall be educational in character and of thoroughly practical value.

The Association Committee has arranged for a presentation of the latest and best upon the technicalities of negative and print making by those who can speak with authority on these matters.

To the Women's Federation of the Association has been assigned the work which is to deal with photograph making from the art side.

The Federation has secured for this work the services of Miss Kate Simmons, one of the best known and ablest teachers and lecturers on art in New York City. She will demonstrate, and show by practical illustrations, the art principles that underlie picture making and the adaptation these principles of composition, line, lighting, etc., to portrait work in photography.

A certain period of each day will be devoted to these lessons, in regular class room manner, and every lesson will be generously illustrated by copies of great pictures and by photographs made by members of the Association. In addition to the lectures, Miss Simmons will privately give sincere, honest personal criticism of the work of any individual who so desires.

This offers to struggling workers an opportunity of unparalled excellence to have solved for them points in their work, which, from lack of an application of an underlying principle of art, fails to satisfy in spite of its perfections from a technical standpoint

The Women's Federation will, as usual, have their exhibit distinct from that of the general association, but will come under the ruling of the National Association, namely: three pictures from each exhibitor, to be passed upon by a jury of three, one artist, and two photographers.

All pictures submitted will be hung, those rating above 65 per cent. in point of excellence will be placed in the accepted class, all others in the rejected class. No names are to appear on any picture. All prints for the Women's Federation exhibit are to be *unmounted.*

The National Association will this year begin a permanent collection of pictures, selecting twenty of the best pictures exhibited, paying for each the sum of twenty-five dollars.

Pearl Grace Loehr
Pres. Women's Federation.

The Traveling Exhibit of the Women's Federation of Photographers

The three traveling cases, containing the "Circle" prints of the Women's Federation,

have been started on their way. They take the following routes: One, commencing at Ft. Fairfield, Maine, goes down the states of the Eastern Section; the second, beginning at Louisville, Ky., makes the route of the states of the Central Section; the third, going to North Dakota, thence through the Western Section.

One week has been allowed for each stop, that is, the photographer may keep the case one week, which will give her time to advertise, to exhibit, or to arrange for a studio social event

By each member promptly expressing the case at the end of the week, all points can be covered before the close of the year

The route of each case will be found on its cover, together with a suggestion regarding the careful packing and prompt shipping, which, if fully observed, will insure the satisfactory working out of our plans

Some have requested that they be notified of the date of the arrival of the case to them, but this will be almost impossible as we can not judge of the time to be consumed in traveling between points

The new express rates, which went into effect on February 1, 1914, makes the rates very reasonable on large packages sent first class, or the photograph class All express charges should be C O D.

Much labor and thought have gone into carrying out the "Circle" work and it is in all earnestness that we solicit careful handling, and prompt attention to the details of the plans worked out, by the Circle photographers.

CLARA LOUISE HAGINS
First Vice-president and Manager of the Circle.

WHAT ONE WOMAN DID WITH THE CIRCLE EXHIBIT

YOU ARE CORDIALLY INVITED TO ATTEND A STUDIO TEA AND ART EXHIBIT AT MY STUDIO,
THURSDAY, MARCH 19, 2.00 TO 5.00 P.M.
THE PICTURES IN THIS EXHIBIT HAVE BEEN MADE BY MEMBERS OF THE WOMEN'S FEDERATION OF THE PHOTOGRAPHERS' ASSOCIATION OF AMERICA
THE HOPE AMES STUDIO

Fort Fairfield, Maine, March 20.

Dear Vice-President:

I am sending traveling case to-day to Bangor.

I gave a tea yesterday with all the things that go with it, music, flowers, and something to eat, and had only the Circle pictures on exhibition. Everybody considered it a great success and admired the picture very much. I am sure I have received a great deal of benefit by having them to look over and study. It makes us seem a little nearer together by seeing each other's work. I hope sometime to be able to make your acquaintance.

Yours resp.

HOPE G. AMES,
Fort Fairfield, Maine.

BY BELLE JOHNSON MONROE CITY, MO.

(WOMEN'S FEDERATION P. A. OF A.)

NOTES AND NEWS

PROFESSIONAL PHOTOGRAPHER'S SOCIETY OF NEW YORK.

REPORT OF THE TENTH ANNUAL CONVENTION, BUFFALO, FEB., 25TH, 26TH and 27TH, 1914.

THE Buffalo Convention will long be remembered as one of the most successful ever held. Indeed, it is not too much to say that there was evidence on every side of more good healthy and fervent zeal than shown at any convention since the beginning of the New York meetings. Every one had a smile and a pleasant word, and while good fellowship abounded, everyone was very much in earnest.

Of the membership of some 240, there was very few who did not attend.

The Convention was opened on Wednesday, February 25th, and the business meeting was full of "go" and "ginger." It was followed by a luncheon for the ladies given by Buffalo Section 6 in an adjoining room in the hotel. The President's wife, Mrs. Howard D. Beach, made a very beautiful impromptu speech, welcoming the guests, and this was answered most appropriately by Mrs. Schloss, the President of the Society of Professional Women Photographers of New York. Others followed with interesting talks, after which a rousing vote of thanks was given Buffalo Section 6. This was a very happy occasion, for it opened a way for the ladies to become acquainted right from the start, and helped wonderfully towards the success of the whole affair. There were some 38 ladies present.

The demonstrations were well attended and interesting. Francis and Clara Sipprell gave much valuable information in explaining, as well as demonstrating, intricate points about autochrome making; Pirie MacDonald succeeded in making his methods clear, and Dudley Hoyt carried on the same interesting demonstrations, and draped models in a deft manner with clothes of different colors, so that all might see. Hoyt knows before he starts just the effects he wants, and he gets them at once, without fitting or trying. B. J. Falk spoke interestingly, as he always does, and made the points clear and telling on the Copyright Law. The entertainment furnished by the Sipprells and Mr. Strohmeyer was exceedingly well attended. Autochromes never appear to so good advantage as with a strong light and screen, and Mr. Strohmeyer held the audience every minute of his "Reminiscences of the Presidents."

On Thursday, February 26th, Emil Strub gave a demonstration in Bromoil, and A. F. Bradley on Operating, and both talks were as successful as could possibly be desired. The Indian Head produced by the Bromoil process during the demonstration had the strength and character of an unusually good painting, together with the accuracy of the photograph. Mr. Bradley worked with the full figure, showing the lines of grace, and a proper balance of line and values. Chas. R. Weirs told a few of the experiences of the Larkin Co., in letter writing, and among other things said that they do not make up a form of letter and send it out at once to all their customers, but scatter a few copies here and there, and re-write and work it into shape gradually until they are certain of results. He advocated the use of the best paper and envelopes. Terseness also, he said, would indicate the style.

The Contest of Ideas had been explained the day before, giving the boys 24 hours to get their wits togethter. Everyone having an idea was called upon to exploit it, after which a popular vote by ballot was taken. The prize for the best suggestion or idea put forward by any member was won by Mr. Burnell, as to a small apparatus for straightening out developed prints. After the Contest J. E. Mock gave a business talk, and he talked well. He gave the boys his views on handling the business end of photography. "Every studio" he said, "should be equipped with a counter. Then, let the people know from the start that having a picture taken is considered a business proposition, as well as an apt project. Never tell a customer that your competitor's price is too high. If you are getting a good price don't run down the little fellow. Stand up for him, and tell the dissatisfied customers that if they had paid him a higher price they would have gotten a better piece of work." Pirie MacDonald also advocated praising the work of a competitor. His speech, as usual, was good and spirited.

The "Pop" Core Banquet was splendid. Core was the youngest and busiest man present, and he lent his usual charm to the whole affair. President Beach was presented with a silver pitcher, and was requested by MacDonald to share it with his wife, as she had shared the responsibilities of the work of the Convention. F. E. Abbott, Treasurer, was the recipient of a handsome scarf pin. Mr. J. I. Hoffman, Secretary of the P. A. of A., was called upon

to speak and made a very favorable impression.

Friday morning the Sipprells repeated the Autochrome demonstration. This was followed by Mr. J. C. Abel, who delivered an excellent lecture on "Cost." He laid great stress upon the point that the profit in photography is much over-rated, which accounts for the absence of a bank account at the end of the year. The election of officers of the Society for 1915 then took place, with the following result:—

President, J. E. Mock, Rochester, N. Y.
Vice President, Carl Frey, Utica, N. Y.
Secretary, Howard D. Beach, Buffalo, N. Y.
Treasurer, F. E. Abbott, Little Falls, N. Y.

Rochester was selected for the meeting in 1915.

The Society is to be congratulated that Mr. Beach consented to accept the post of Secretary.

In the afternoon a private coach load of visitors made the enjoyable and interesting trip to Niagara Falls

The foreign exhibition, gathered by Harry A. Bliss, was the best ever brought to this country. Twelve nations were represented. by the best workmen. The American exhibition was also one to be proud of, the New York photographers especially doing great honor to the Society by sending prints of their best pictures, which for the high standard, were not excelled by anything shown. It is our opinion that the exhibition struck the highest note yet attained by the Society, nor is it at all probable that any other exhibition has exceeded it in quality. Too much praise cannot be given the boys of Buffalo Section 6 for their part and good work in keeping things running smoothly.

It is evident that the Society has passed its experimental stage, and that this Convention has shown a desire on the part of those most vitally interested to not only continue the good work, but to build up a stronger and more useful organization.

Copying Old Documents.

We were recently consulted in regard to a photographic matter concerning the detection of a suspected alteration and erasure. The document was some years old, and the ink was much faded. This was a case in which the folly of the common advice to attempt restoration was self-evident.

The copying of old manuscripts is becoming increasingly common, and several photographers are specialists in the work. There is one rule which should be followed with all valuable documents, however much they may be faded, and that is, don't attempt any faking or restoring of the original. A slow plate, not overexposed, and developed with ferrous oxalate will often give what is required. The use of an orthochromatic plate, with or without screen, depends on the color of the negative, and its choice must be left to the discretion of the photographer. For a document that is very much faded or stained there is an excellent treatment. Develop the negative with an eiko-hydro developer until the detail is well out, fix in acid fixing-bath, wash well, and when thoroughly dry, bleach out with the usual bichloride mercury and sal ammoniac solution, wash in running water for fifteen minutes and when dry place in front of a dead-black surface and photograph. The resulting negative can then be, if necessary, intensified. Excellent results have been obtained by this method, the greatest advantage of all being that it works no possible injury to the original.

The Illinois State Photographers' Association will meet in Peoria on July 14-15-16 and 17. The date for the convention was decided at a conference between the executive committee of the association and C. W. Dull, manager of the convention bureau of the Association of Commerce. The meeting is expected to bring two hundred photographers to the city from all parts of the State. The four days' sessions will be held in the Jefferson hotel.

An outlay of several thousand dollars will be exhibited at the institute which comes in conection with the convention. The exhibit consists of artistic photographs and supplies of all kinds. A. C. Benard of Lincoln, Ill., is president of the association, and Roger H. Hostetter of Ottawa is secretary.

Graphic Arts and Crafts Year Book an Aid to Art

Always looked for with interest, the Graphic Arts and Crafts Year Book for 1913-14-Volume VI—fulfills and really exceeds the expectations the preceding volumes justified. The review copy which has just reached this desk is an achievement of which any editor might be proud and any printer emulate.

The book contains over a thousand pages, and includes exhibits of the best the year produced in engraving commercial publicity, fine printing, design, and the other branches of the art preservative and its kindred. Nearly forty kinds of papers are shown in the volume, each revealing its possibilities for the use to which it is most adapted. The process engraver, the printer, the binder, the student of poster designs, and the arts and crafts in general—those, at least, in any way concerned with the graphic arts—should find this volume an invaluable guide to improved methods and wider vision.

The Republican Publishing Company, of Hamilton, Ohio, one of America's greatest printshops, publish the book, which sells for five dollars a volume, carriage paid

More About Ansco Company's $5,000 Loveliest Women Contest

Announcement recently of Ansco Company's $5,000 "Loveliest Woman" Contest created intense interest in amateur and professional photographic circles. Blanks containing conditions of the contest were eagerly secured from the thousands of Ansco dealers and you would be surprised to know the vast number of photographers who are already at work photographing their "Loveliest woman."

To-day is the day to begin. You should get your contest blank right away, understand the simple conditions and what a fine chance everyone has to win one of the 50 prizes that range from $500 down to $50 for a *single* photograph.

We cannot conceive any more attractive contest for the photographer interested in increasing his business by announcing that he intends to compete and asking the lovely woman of his town to help him by coming to him to be photographed. Here is a chance to get in and do some big work, to earn big money and to become nationally famous. The inducement is very great to every woman who naturally wishes her beauty perpetuated and to every man who is a lover of the women of his family

Ansco Company is particularly happy to have received so many congratulatory leters from professional photographers. All agree that the novelty of the contest is not only appealing, but that the idea of exhibiting the winners before the people at the Panama-Pacific Exposition adds immensely to its value as a national affair

Conditions are so simple that there are practically no restrictions. For instance, you can use any style camera, or any film, plate or paper. Just say *which* on your entry blank. What Ansco Company is primarily interested in is to secure the photographs of "America's 50 Loveliest Women" and to make the exhibition at San Francisco the most memorable in the history of the photographic art.

Get your friends interested and take the right sort of interest yourself. Your "loveliest woman" is right at hand. Begin now to work for the pictures that may prove "her" one of "America's 50 Loveliest Women."

Talk to the Ansco dealer nearest you about this contest. He will help you. Get the pride of your home place into your heart. Wouldn't it be fine to have one of the "home" girls win a prize—to be known as one of "America's 50 Loveliest Women?"

There is a lot more news coming out soon. Watch these columns closely.

Nine Rules for Carbon Printing

1. A carbon negative should have "body."
2. Consider carefully the color of the paper and the strength of the sensitising bath.
3. Carefully watch the sensitising bath, and do not forget attention to the addition of ammonia.
4. Keep the bath below 55 degrees F. in summer and 59 degrees F. in winter.
5. Attach the highest importance to the drying in the tissue.
6. Do not allow the sensitised tissue to become old.
7. Stretch the sensitised tissue the next morning in a frame.
8. Print whenever possible in the open.
9. Let the time which elapses between printing and development depend on the character of the negative. Thus with a soft negative the tissue should be developed immediately after printing.

The Southern School of Photography, McMinnville, Tenn., brought its annual post-graduate course to a successful close Friday, February 27th. Forty-five students were enrolled. Among them were Herbert B. Medlar. of Wodstock, Ill., former president of the Illinois Association of Photographers; G. W. Summers, secretary of the Missouri Association of photographers; Dewitt Allen, of Potsdam, N. Y., and O. A. Severance, of Watertown, N. Y. Mr. Summers was accompanied by his wife, who was also a student.

Every department of photography was treated concisely but comprehensively during the course. Plate and paper demonstrators who visited the school gave interesting talks. They were John Corbitt, representing the Ansco Company, and Stanley F. Osesek, of the Eastman Kodak Company; J. S. Lively, Seed Plate demonstrator, and J. P. Dorella, Cramer, Plate demonstrator.

The class, without exception, was delighted with the good derived from the course, several students publicly expressing their satisfaction.

Mr. Severance, a graduate of 1908, accompanied by Mr. Allen, visited historic Lookout Mountain and Missionary Ridge near Chattanooga, before returning home.

"I Believe With Other Wise Men:"

That life is what we make it—and that business is a big part of life; that unless we are in it to win, it is better not to be in it at all; and that the man who labors for the love of it is the man who is doubly paid; that advertising is the fire under the boiler of business, and we must keep these fires hot if we expect to attain and maintain success; that one step won't take you very far—you've got to keep on walking; that one word won't tell folks who you are—you've got to keep on talking; that co-operation is the most far-reaching business word in the English language; that to live up to its full meaning is to profit by advertising's mightiest power; and that in advertising, as in all things, success has no foe but fear—no limitations save those that are our own; that, therefore, courage and confidence and energy in advertising are as sure to win—as sure to bring prosperity to us in the new year—as the dawn of to-morrow brings a new day.

—*New York American.*

Orthochromatic Wet Collodion

When making negatives from line originals upon yellow paper, the addition of a little eosine to the collodion and the use of a Wratten's K1 or K2 filter will make all the difference in the negatives, but the dark room-illuminant must be red, not bright yellow.

A formula for the eosine is this:—

Eosine .....1 dram
Alcohol .....10 ounces

10 minims of this are added to each ounce of ripe bromo-iodised collodion.

The addition of eosin makes no alteration in the ordinary working of the collodion, so long as the dark-room illumination is correct for the altered colour sensitiveness of the collodion film. Given a good dark blue print (ferro prussiate), from which to produce a line block, showing black lines on white ground, this eosine-sensitised collodion gives good results, the first image being easily converted into a negative.

The glass plate must have a substratum of albumen or geletine; the rest of the procedure is as usual except that a K3 filter is used, which will make the exposure about ten times longer than when no filter is used.

When the image is developed, and after well washing, the plate is immersed in a solution of

Potassium bromide..... 2 ounces
Water .....10 ounces

for five minutes again washed, and in a good white light immersed in

Potassium permanganate .....30 grains
Water .....20 ounces
Sulphuric acid .....1 dram

again wash and develop a negative image with

No. 1 Hydrokinone .....120 grains
Potassium bromide ..... 60 grains
Water ..... 10 ounces
No. 2 Caustic potash ..... 60 grains
Water ..... 10 ounces

Use equal parts and develop thoroughly, wash, intensify with copper bromide and silver nitrate, bleach with iodine, clear or cut with potassium cyanide, finally blackening up with sulphide.

If the blue print is a light one the lead intensifier may have to be used after the cutting, but this is not usually required.

W. T. Wilkinson in Penrose Annual.

The National Convention to be held June 15, to 20, at Atlanta, Ga., promises to be one of the best the Photographers' Association has ever held.

The picture exhibit will be more than a showing of portraits. The pictures will be graded by the judges and all those rating above 65 per cent. will be placed in the accepted class. All the prints will be hung and the judges will be in charge of the exhibit at all hours of the day, ready to give private criticism of the pictures to any one. This will enable every one to obtain specific information as to the judges' opinions of the relative value of the portraits and will be much more instructive than a careless examination of the exhibit. Never before has the opportunity been given to every one to secure the private criticism of competent judges. Twenty-five dollars will be paid for each of the best pictures (not to exceed twenty in number) which will form the nucleus of a permanent salon.

The manufacturers and dealers are preparing their exhibits of the new Fall Styles and these with all the latest discoveries and inventions which benefit the profession will be on display. Educationally there is nothing in the country to equal this Convention. Everyone who attends may feel sure that he has up-to-date information on the newest and best things in photography.

National Publicity will be given this Convention through the Associated Press and other media. This publicity will benefit the profession in every section of the country.

Parcel Post rate on photographs, revision of the fire insurance rates on studios, the licensing of photographers and other live issues are expected to be brought before the Congress of Photography for definite action.

A special train is being arranged for the photographers of New York City and vicinity and one for the photographers of Chicago, also St. Louis. There will be a boat load from New England who will travel by water to Savannah, Ga., thence by rail to Atlanta. Two salesmen who made a 1,500 mile trip through the Southern States report that every photographer upon whom they called is planning to attend. The meeting place this year is one that will attract the men from the North, South, East and West.

Photographers who want to grow in the profession cannot afford to miss this Convention. The P. A. of A. is the one organization through which each photographer may secure the reforms which he would like to see accomplished but which he cannot bring about single handed. This is the year we all get together and make the Association strong enough to accomplish National reforms for the profession.

Practical Discoveries in Photography

The amateur and professional photographer alike are always on the *qui vive* for new methods. With this thought to the fore, these three latest contributions to the photographic craft, should prove helpful. The Messrs. Dawson, for example, of London, have succeeded in making a "photographic base" for use in color photography. It is obtained by producing on the sensitive coating of a film, plate, or paper, different physical states by two separate operations. These may be performed either separately or simultaneously. Thus the two operations may consist of simultaneous or consecutive exposures of unequal time through two screens or negatives or two separate exposures through one negative.

The photographic base thus produced is selectively colored. Color transparencies may be produced by first making a color screen positive transparency and then building on this, one by one, the colors of the multicolor screen by means of the working screens on their duplicates used for making the multicolor screens.

In making color transparencies from continuous tone negatives or positives, a sensitive film or plate is given unequal exposures through two such negatives or positives and then selectively colored. To produce color prints on opaque bases the sensitise base is given two unequal exposures through two continuous tone negatives or two printing screens, and then selectively colored. Three color photographs are produced by re-sensitising a two-color base obtained as above, and selectively colored with the third color.

Another English photographic discovery relates to the production and treatment and use of geletinous reliefs. A silver image on a non-pigmented geletin support is treated with dilute. three to five per cent. chromate or bichromate solution. This renders the geletin insoluble which is in intimate admixture with the silver image. The soluble portions of the geletin are now removed by treatment with a concentrated solution of sodium bichromate at a low temperature.

Then the silver is dissolved locally or entirely from the film by means of sodium thiosulphate either alone or mixed with ferricyanide

The clear gelatin relief prints thus formed may be stained with a dye or colored by local staining with or without the use of a mordant. The colored reliefs may be used for moving picture films, color photography, color printing, or ordinary photography. The clear reliefs may also find a use as resists in etching and sand blasting.

The production and combining of color elements for diapositives and kata-positives has been newly worked out by Mr. F. W. Kent, of Clapham, England. A silver print is produced and toned on a flexible base, saturated or surfaced with resin, rubber, ozokerite or a like material impervious to water and softened by heat or by a solvent. The print is now cemented to a final support of glass, celluloid and the like. This may also hold a gelatin-relief as above described and the flexible base is then removed.

When several transfers are to be superimposed they are cemented together by means of a mixture of water-glass and albumin.

Fourth Annual Exhibition Winnipeg Camera Club

To Be Held in the Civic Art Gallery of the City of Winnipeg, Under the Auspices of the Civic Art Committee

You are invited to submit prints for the Fourth Annual Exhibition of the Winnipeg Camera Club, to be held in Winnipeg, from June 2nd to June 13th, 1914.

Rules

Exhibits must be delivered, carriage paid, to the Secretary, Winnipeg Camera Club, Industrial Building, Winnipeg, on or before the 23rd of May, 1914, and the attached entry form, properly filled out, must be mailed separately to reach him before that date.

Exhibits from points outside Canada must be sent by post, thus avoiding customs formalities in receiving and returning.

No fee is charged for entrance.

Pictures must be mounted, but may be framed. Each must bear, on the back, the title, the exhibitor's name and address, and club, if any, to which he or she belongs.

All pictures must be the *bona-fide* production of the exhibitor.

Judging

The Jury of Award will consist of three competent and disinterested persons. Their decision shall be final. Any number of prints may be submitted, but only such as in the opinion of the Judges show distinct artistic merit will be hung. Each exhibitor will be furnished with the catalogue issued by the club, which will be official notification of acceptance or rejection.

Awards

Gold, Silver and Bronze Medals will be awarded to the best three pictures in the exhibition

The McMillan Challenge Cup will be awarded to the best pictures by a member of the Winnipeg Camera Club, the winner to hold the cup for one year.

Certificates will be awarded to all exhibitors whose work receives Honorable Mention.

The club will assume no responsibility for loss or damage, but every care will be taken of the exhibits.

Exhibits will be returned as soon as possible after the exhibition, provided a sufficient amount is enclosed to cover return postage.

Entry forms will be mailed on request.

Popularity of Linen Surface

More and more linen surface is being used in the better class of portrait work. It produces a print distinctly different from what your trade is accustomed seeing and one that you can easily demand higher prices for. At first linen surface paper was considered a novelty but now it has taken a place as a standard printing medium. Through their plan of selling from factory to you prepaid, the Photo Products Co., Chicago, are able to offer linen surface Platora in two grades, white and buff, at very reasonable prices. We understand that Platora possesses exceptional portrait quality. Read their ad. found elsewhere in this issue for further information. They make a special trial proposition that should certainly interest you. Their products

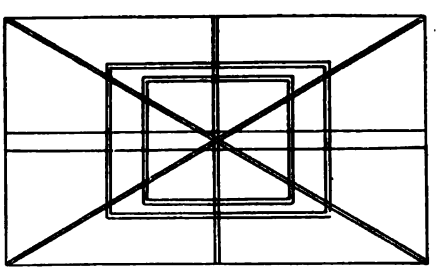
also include Instanto, a remarkably high grade, yet inexpensive paper—something that will fit in nicely for commercial or amateur finishing. Why not send for a price list and further particulars regarding the direct proposition they are making to the photographer? Mention that *you saw it in* WILSON'S.

Progressive photographers are rapidly appreciating the absolute need of dependable artificial light for negative making. Large numbers of them have installed the Victor Studio Flash Cabinet and all users of it speak about it in the most complimentary manner. If you are without satisfactory artificial light, better write at once to J. H. Smith & Sons Co., 3545 Cottage Grove Ave., Chicago, for descriptive booklet and full particulars.

"PORTRAIT" FOR MARCH GIVES AN EASY METHOD OF JUDGING EVEN ILLUMINATION

ONE of the enlarging troubles so often met with is the question of even illumination. While sometimes the projection will appear to be evenly illuminated, yet on developing the enlargement it is found to be weak in one part or another.

Operators of any form of enlarging outfit will find that by using a chart similar to the illustration their troubles regarding even illumination will cease.



The chart is easily prepared. Take a piece of white cardboard and paint on same dead black lines—the size of the cardboard being determined, of course, by the largest size enlargement made.

The cardboard should be attached to the easel and the lines followed to the extreme point of the size of print to be made. Any falling off of illumination is easily apparent.

This method is very necessary where condensers are not used.

WE have received word from Mr. J. A. Dawes, the new manager of the Promotion of Trade Department of the Wollensak Optical Co., that the splendid policy which his department has followed in the past will be carried on under his personal guidance. The Promotion of Trade Department is maintained for the sole purpose of helping those interested in the Wollensak product, and Mr. Dawes is always on the alert for an opportunity to assist in any way possible. The Wollensak Optical Co., backs up all their goods with the broadest guarantee and grants a liberal trial privilege on all lenses. If in doubt write Mr. Dawes about it.

PHOTOGRAPHISCHES WOERTERVERZEICHNESS, EDITED BY CARL SCHWIER, WEIMAR

THIS pamphlet of 17 pages is a list of some photographic terms in German, French, English and Italian, and is an enlargement of one originally given by Cobenzl in the Deutsche Photographen Zeitung. The Editor plumes himself on the valuable assistance he has received from one Frenchman and two Germans, but I fail to note that he has called in the aid of an Italian or an Englishman. Had the latter been the case, I hardly think than one would find such curious definitions as one does—though let me add that so far as I know every polyglot dictionary of photographic terms suffers from precisely the same curiosities. For instance 'abmessen' we are told is to dose; well we measure out a developer, but I should hesitate to say that we dosed it, and whilst the pimple may be a thing of beauty on one's nose, as a 'Blaschen' or blister on a print it certainly is not. We do not talk of lens capes, but of caps, nor do we call a view finder a sighter, nor can I see how a screw can be at once a screw, a bush and a nut, which is the definition given for 'Mutterschraube.'

Such slips as these one may overlook, but there are one or two bad mistakes, for instance 'Diapositif is certainly not a lantern, and whilst a 'Dreifarbenraster' is a three-color screen we should call it a screen plate I must confess that 'gequaelt (bei Negativen') is an absolutely new term to me and had I met it in any German paper I should have been totally at a loss how to translate it; but I see that it means 'a harassed negative'—well I have added another extremely valuable and expressive term to my vocabulary and one deliciously expressive of some of the negatives that beginners turn out; but neither the German nor the English terms convey that which is given by the French synonomous word, which means a hard or contrasty negative This certainly is one of the advantages of this vocabulary, for if you do not happen to know the correct translation in your own or another language, you will probably be able to run it to earth in the third or fourth

However, joking apart, this list may be useful to globe trotters though they must not rely too much upon it and it would be advisable to take it with them into a store so that the dealer may be able from at least one of the four languages to understand what they mean.

E. J. WALL.

HINTS ON THE USE OF METOL

THE following notes are a brief abstract of Dr. Anderson's instructions given in "Das latente Lichtbild" (see March issue p.) and are given

because metol is always looked upon as one of the rapid acting developers (Eder's classification) which is not amendable to adjustment for overexposure or obtaining contrast as are other developers.

As regards underexposure, his main suggestion is to stop development early, so as not to obtain harsh contrasts, which is the usual practice. In the case of overexposure he points out that this is generally supposed to be controlled by the use of such agents as pyro, glycin and hydroquinone, by cooling the developer or adding bromide and that metol is useless for this purpose; but he points out that by varying the proportions of the metol and alkali good results can be obtained and gives the following formula and table:—

A

Metol	10 g.	70 grs.
Sodium sulphite	50 g.	350
Water	1000 ccs.	16 fld. ozs.

B

Potass carbonate	40 g.	280 grs.
" bromide	0.5	3.5
Water	1000 ccs.	16 fld. ozs.

These solutions and the dishes which are to be used for development are merely kept in the room where development is to be carried out, it is only then necessary to take the temperature of the air of the room and to read off from the following table those proportions which are best suited for the temperature:—

Temperature	Parts of A	Parts of B
59 Fahr.	50	39
61	"	30
63	"	23
64	"	18
66	"	14
68	"	11
70	"	9
72	"	7
73	"	5
75	"	4
77	"	3
79	"	2
82	"	2
84	"	1
86	"	1

Anderson's rules are to take less of B than given in the table for overexposure and add some bromide, and for underexposure to use more B and add water. But as one does not know till one begins to develop whether one has over or underexposed, it is then too late to make any alterations.

Assur Colors

A New circular which deals with the Assur Coloring Method has just been issued by Messrs. Schering & Glatz. It comprises the experience of expert "Assur" artists and has many new and important features. Aside from the modification of the technique, it contains hints as to the use of Assur Colors on Platinum Paper, gives more detailed instructions concerning the coloring of portraits and tells how the colors may be reduced without disturbing the uniformity, if they have been applied stronger than finally desired.

Another valuable use to which these colors may be put, is the production of effective and absolutely permanent Background Wash-Effects—as well as the working on Photoloid.

The demonstration of the "Assur" process convinced the photographers who visited the P. P. A. of Pa., in Scranton last month, that the Assur Colors have no equal. The booth of S. & G. was crowded with interested photographers from early morn until the closing hour.

The Eastman Co. Settles Goodwin Film Case

A satisfactory settlement was made March 26th, between the Goodwin Film and Camera Company and the Eastman Kodak Company concerning the suit brought in the Federal District Court by the former for an accounting of the profits derived from the sale of photographic films prepared according to the patent taken out by the late Rev. Hannibal Goodwin of Newark, in 1898.

The details have not been announced, but it is understood the payment of a large sum of money by the defendants as a composition of the claims of the Goodwin Company was made for the continued use of the patents by the Eastman Kodak Company. The settlement will be filed with Judge Hazel in the Federal District Court at Buffalo, before whom the Goodwin Company brought its suit.

Thus ends this long litigation to the satisfaction, it is believed, of every one concerned.

Current Topics in Leading Periodicals

At Home Portraiture. March 13th, *British Journal.*

Color Collotype, F. T. Hollyer, Feb'y *Photographic Journal.*

Chromium Intensification Process. Feb'y 16th, *Amateur Photographer.*

Dealing with Halation. April, *American Photography.*

Filtering Solutions. Feb'y 20th, *British Journal.*

Flair Spot in Lenses. Feb'y 27, *British Journal.*

Gelatine Light Filters. March 3d, *Photography & Focus.*

Preparing Originals for Copying. March 3d, *Photography & Focus.*

Pinholes in Negatives. March 6th, *British Journal.*

Reproduction of Autochromes on Paper by Three-color Carbon Printing. March 6th, *British Journal.*

Rapid Fixing Baths. March 13th, *British Journal.*

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WILSON'S PHOTOGRAPHIC MAGAZINE

FOUNDED IN 1864 BY EDWARD L. WILSON

VOL. LI. MAY, 1914 No. 5

HOW WOMEN HAVE WON FAME IN PHOTOGRAPHY

IT is a far cry from the time of Daguerre, who first gave to you the quaint pictures of your grandparents, to the modern high art of the present-day photographer. But, as the achievement of this able Frenchman marked a period of artistic and scientific advancement, so the splendid photographic work of women is giving those of the twentieth century something of which to boast.

Recently, Mr. John Alexander, one of America's most eminent portrait painters, was heard to remark that women make most excellent art critics.

"A woman," said Mr. Alexander, "once she becomes interested in any thing pertaining to this profession, absorbs ideas quickly, develops a keen sense of relative values and a delicacy of appreciation, and with all this she exercises a true and honest judgment of a painting. Some of the best criticisms I have ever heard rendered have been given by women, and those who once scoffed at their work in this direction are now having to sing another tune; women are becoming great artists and sculptors, they have always been good critics."

If this is true in the world of pigments and plaster, why should it not apply to that of the camera and lens? Why women did not enter this field many years ago is a thing difficult to understand, but why she has become so great a success after once yielding to the fascination of the camera presents no such difficulty.

Glancing over a very complete and beautiful collection of pictures, both in portraiture and in landscape, it suddenly dawns upon one who knows little of such activities, that this is the work of women photographers, from every part of the United States. Referring to statistics, it is found that there are over 1,800 women in this profession in

America, and that their number is continually increasing, and that many are engaged in the work whose names are not yet enrolled among the professionals.

It is but five years since Mary Carnell, of Philadelphia, became responsible for the formation of a Women's Federation of Photographers within the Photographers' Association of America—the only National organization of professional women in the United States. Already the visions and dreams of unity and strength which animated the generous and helpful heart and mind of its founder are being realized. To-day men and women meet in the annual conventions as professional workers, each giving and receiving the criticisms, the instructions, and helpful suggestions as individual members of the same profession.

As the advantages offered by the Women's Federation of Photographers to its members become more and more apparent, the number of professional women seeking these advantages increase. Among the officers of the Federation are to be found the names of the leading women in the profession. Pearl Grace Loehr, of New York City, President of the Women's Federation, is widely known through her wonderful portraits of children. Clara Louise Hagins, of Chicago, First Vice-President, is noted as a financier in the photographic world. Maybelle Goodlander, of Muncie, Indiana, Second Vice-President, has brought studio photography to a high standard, while the Secretary-Treasurer, Sara F. T. Price, of Philadelphia, has made known the real value of work done in what is termed the "Home Studio."

Did you know, or did you ever stop to think of it, that there are women photographers who are receiving fifty dollars for a sitting, and in many instances as much as two hundred dollars? The standard for artistic photography which these women set is high, the finished product of their hands has the artistic merit to warrant the demand for such financial reward.

That it does not take long to develop the artistic sensibilities of the feminine mind is a matter long past discussion. To one who doubts its truth, she needs but to look at the work in portraiture, delightful examples of which are frequently exhibited. These portraits of men, women and children show her nice appreciation of the values of light and her knowledge and sense of composition.

SARA F. T. PRICE
SECT'Y. & TREAS. WOMEN'S FEDERATION

Other women turn to a field that is becoming more and more prominent in the camera world, that of landscape photography. To many persons the thought of photography is always connected with a studio and its fittings, but this is too limited. Not alone in the studio have we what is known as painter-photographer, and landscapes, scenes in city and country life are produced with pictorial effects that nearly make the artist of brush and pigment envious.

Every woman desires to create beautiful things. To some, this desire finds expression in oils, pastels, or water colors, and through these many women

BY BAYARD WOOTTEN, NEW BERN, N. C.

CHAIRMAN SECTION II. WOMEN'S FEDERATION

BY THE GERHARD SISTERS, ST. LOUIS, MO.
ON THE WOMEN'S FEDERATION P. A. OF A.

have attained success. Others have the tastes, and desires for such expression, have studied and worked for ability to express it in pictures, but for lack of the power of execution, have met disappointment, both in artistic recognition and in financial returns for her study and labor. Photography affords her a method of using all she has learned of art, and of pictures, and of composition, and all that goes to make up a picture, and allows her to express her artistic ideas, and insures a self-supporting business. Many young girls who have taken up the study of photography in earnest, have not only mastered it from the technical side, but have added to this knowledge, work and study in art schools—and have thus developed into some of the best known photographers, not only in the United States, but in France and in Germany.

Women in the field of photography have established what has come to be known as "Home Photography." Their entrance into the profession has filled a long-felt want. Through them you can have portraits of your children and of yourself made in your own home, amid the individual surroundings which you have created in your home—freed from the trouble, excitement and disappointment of carrying children to a distance into a strange studio. A lady, doing artistic work, can be readily admitted into the intimacies of your home, and there is a deal to say regarding their success with children, and with mothers and children, in their home relations, for if any one can understand, and catch these two parts of a home, it must surely be another woman.

The most cursory study of photography as a profession, shows what a

broad field of work it offers. There are those who would instinctively turn to modeling or painting animals, were she in that line of work; just so, in photography, she who loves an animal, and has decided success in working with the pet or the prize fellow, turns to making pictures of her favorites. In many cases,

BY MISS REINEKE. KANSAS CITY, MO.
WOMEN'S FEDERATION P. A. OF A.

it is just as important to persons to have photographs of their pets and prize animals as it is to have photographs of themselves. Several photographers are today confining their entire attention to this branch of the business. One woman of ability is engaged in making pictures of animals for stock breeders. This is not only unique as a field of work, but this branch of work has become invaluable to the business of animal breeders.

Another most interesting line in photography is that of making copies of oil paintings. To an amateur, this would seem, perhaps, an easy thing to do; but not one photographer in ten can make a successful copy of an oil painting unless he has been trained to it. In this branch there are but comparatively few engaged; one of the most successful is a woman.

The photographer is the necessary adjunct to the scientific worker and the leading maker of plates of things scientific and microscopic in the United States is a woman. This is one of the most difficult branches of the business, yet it has been mastered by this woman.

But, if you want adventure, or excitement, just turn to newspaper picture taking and you will have plenty of it.

BY EMMA WISNER, OXFORD, OHIO
WOMEN'S FEDERATION P. A. OF A.

There are numbers of women throughout the United States who do this kind of photography for their living, and a mighty good living they make, too. Now-a-days, magazine illustrations are made by the camera, and photographic advertising work is much in demand, and the combination of these with news-

BY ETHEL STANDIFORD, LOUISVILLE, KY.
WOMEN'S FEDERATION P. A. OF A.

MAYBELLE D. GOODLANDER
2D VICE-PRESIDENT WOMEN'S FEDERATION

BY MARTYN ELLIOTT, AUSTIN, TEXAS
WOMEN'S FEDERATION P. A. OF A.

BELLE JOHNSON, MONROE CITY, MO.
WOMEN'S FEDERATION P. A. OF A.

paper picture-making keeps a woman busy filling orders, and leaves her little time for studio teas, or teas of any other social kind. So, one perceives that in photography is a business for women that has many sides to it, and in which there can be made a distinct choice of the line most suited to the mind of the woman choosing it as a profession.

BY JANE DUDLEY, WHITTENSVILLE, MASS.
WOMEN'S FEDERATION P. A. OF A.

Since the establishment of the Women's Federation of Photographers, with its idea of co-operation and mutual helpfulness to all engaged in the profession, many women have taken up some phase of its many-sided work. Through it many a genius of the camera is coming into recognition. When the Convention of the Photographers' Association of America is held in Atlanta, Ga., from June 15th to June 20th, there will be in attendance many of the representative women workers in the United States.

BY BAYARD WOOTTEN, NEW BERN, N. C.
WOMEN'S FEDERATION P. A. OF A.

Realizing the difficulties in the way of those who would obtain education and understanding of the artistic side of photography, and the great good of helpful direction, the Women's Federation has made arrangements with Miss Kate Simmons, of New York, a well-known instructor in art, to have a place upon the program of the coming Convention, and she will deliver a course of lectures, well illustrated, on the subjects of composition, lighting, tone, and other qualities that go to make a piece of artistic work.

To photographers, a decidedly new and interesting feature of the Photograph Convention in Atlanta is the plan for beginning a permanent collection from the best photographs exhibited each year at the Conventions. The Executive Board of the Association has planned to purchase twenty of the best pictures exhibited, and have set the purchase price at twenty-five dollars each. These pictures will form the nucleus of a collection that will mark the progress made,

BY FLORENCE MAYNARD, PHILADELPHIA, PA.

BY KARL MAYNARD

from year to year, by all photographers of the country.

Not long ago the Museum of Natural History, in the City of New York, realizing that thousands of children in the city can never visit the museum, established a device to enable these children to know something of many birds and little animals with which they had no acquaintance. A set of cabinets, containing these animals and birds, were prepared for visiting collections, and sent to the centers where the children could view them. To these little ones who had never seen a bird except the street sparrow this was a gift beyond words, and their delight proved pathetic when the feathered beauties of this collection came to them.

THE GERHARD SISTERS, ST. LOUIS, MO.
WOMEN'S FEDERATION P. A. OF A.

On some such plan the women of the Federation formed what is known to women photographers as "The Circle." These women divised and put into execution this method of circulating pictures throughout the United States, touching even remote parts of the country. They have formed collections of pictures by representative workers among the women, and, having laid out a route of travel, in each section of the United States, start them on a journey to each woman. The first receiving the collection, studies the pictures, measures her work by that done by names noted in her profession, uses them for a studio exhibit, and then forwards them to the next member.

BY KATHERINE BINGHAM
ST. JOHNSBURY, VT.
WOMEN'S FEDERATION P. A. OF A.

The value to those of the profession remote from the centers of photography, and unable to reach the Conventions to have brought to them the best work of leaders in the profession, is incalculable. It keeps them up-to-date, and informed on the work as it comes from the cameras of various photographers, and does not leave them to judge from reproductions, and thereby forming inaccurate ideas of tone and other technicalities.

Many women now reckoned as leading professionals began as amateurs. Dabbling in picture taking is lots of fun, but it develops into a delightful recreation when one or two very beautiful things have been caught by the camera.

BY HALLIE WILSON, BERLIN, N. H.

CHAIRMAN SECTION I, WOMEN'S FEDERATION P. A. OF A.

BY BELLE JOHNSON, MONROE CITY, MO.
WOMEN'S FEDERATION P. A. OF A.

Led thus, many became more interested, began to study its technicalities, its tools, its possibilities, and one day found themselves equipped for the business of photography in a favorite branch. What was first sought as a recreation—became, when necessity laid her compelling hand upon them, a means of self-support. There are those who began in this way who are to-day successful, in some line of the work, and supporting others on the income of her profession.

Woman's success in this work is not due to the fact that she is a woman, nor in spite of her being a woman, but because she is a human being who has devoted her mind, her hands and her spirit to the work she has chosen in which to serve the world for its joys and for its needs. It is because her work holds this spirit that she has become an artistic and a financial success in the profession of photography.

BY BELLE JOHNSON, MONROE CITY, MO.
WOMEN'S FEDERATION P. A. OF A.

BY LOUISE UPTON, LOS ANGELES, CAL.

OF THE WOMEN'S FEDERATION P. A. OF A.

PROGRESS IN RETOUCHING

I AM afraid that in most businesses the beginner who is desirous of learning to retouch gets little or no overlooking and instruction. It seems to be one of those things that people are expected to "pick up," and yet it is one of the most indispensable parts of the portrait photographer's business. Sometimes this arises from the fact that the retoucher is always busy, sometimes because it is too much trouble to take the tyro in hand, and sometimes, I am sorry to say, because the retoucher does not wish to help another competitor to enter his own special line. Whatever the cause, however, the fact remains that the beginner gets very little supervision, and this often leads to much wasted time and effort.

The great aim of retouching is to *help out,* not to *alter* the operator's results. Therefore, if the would-be retoucher can get some simple, but good idea of lighting, it will prove of great assistance.

The retouching pencil is a delicate instrument, therefore do not grab it in an iron grip as if you meant to kill somebody. If you do you will only poke holes in the film of the negative which you will find it difficult to spot out, and you will also find it next to impossible to do really delicate work. Hold your pencil lightly, yet firmly, so that it will not wobble and will work with a nice long, fine point.

If you will study any good engraving of a head you will find that it is composed of thousands of little, evenly-spaced dots, varying only in shades of color. Now, on any pen and ink sketch, cut from a newspaper, try to copy this engraving effect with your retouching pencils. You will find it very difficult, if not impossible, yet this engraving effect and the "stipple" retouchers so much seek after are very much alike, and one will help you to acquire the other, and will also teach you that what you seek for is the ultimate appearance or effect of the *masses* of light and shade and the knowledge of where the high-lights and shadows *ought* to come. High-lights give life to a print and keep it from looking sombre and muddy; therefore give them your most careful attention. Do not make them look like a white plaster of Paris cast, and see that they soften off into the half-tones nicely, which means delicate work.

A word of warning here may not be amiss. Do not let your male sitters' cheeks look as if they had only been shaved in patches, while the ladies look as if their complexions had been out in a shower and were coming off. Let your various masses of light and shade be clean and even, according to their different densities, without little spots here and there that are lighter or darker, as the case may be, than the rest. You want a nice, bright, clean effect, and not too much of it.

Be careful not to take out the delicate half-tones that come between high-light and shadows, and do not let the hair look as though it were a wig, with a very heavy dark join running all round the forehead. Seek to keep the face round and natural-looking, and if you get a softly focussed negative, do not try to make it look as if it were very sharply in focus. You will only make a hash of it and spoil the resulting prints. Work according to the negative itself, soft for soft and harder for sharper negatives, remembering that a man's skin is almost always coarser and shows the pores more distinctly than a woman's. Therefore, only smooth and even it up; do not alter it.

In dealing with copy negatives, be especially careful not to lose the tiniest bit of half-tone, and not on any account

BY BAYARD WOOTTEN NEW BERN, N. C.
WOMEN'S FEDERATION P. A. OF A.

to take out or alter the expression as compared with the original. A little fining up will most likely be wanted as the grain shows, but do take care not to alter anything. Only keep the high lights nice and clear and bright-looking.

The forehead, nose, and cheekbones usually take most high-lights, and sometimes they are noticeable over the eyebrows, but always notice first when they come in your negatives, and work accordingly.

Keep an eye open for shadows that are too heavy under the nose, down the side of the nose, and under the chin. These may come from under-exposure or defective lighting, but if they are there you must help them out. Also on wrist, shadow side of arm, elbow, and children's knees you will frequently find the shadows are unduly heavy and want lightening, just a trifle only.

Ugly creases also often come in coats and blouses, and are all the better for your careful attention and a soft pencil. No. 3 is the most used, I think, with 1 or 2 for shadows, etc., and 4 and 5 for lighter work wanting a harder pencil.

Do not worry too much about speed and stipple; it will come in time. But see that your negatives are clean and free from noticeable defects. Turn them round glass side to you before you consider them done; you will then often notice any little extra touches that are wanted. And do not look too closely at it; keep a foot or two away, and look only for the all-over effect.

Sometimes it will happen that the younger retouchers will get a bit downhearted about their progress if they have not any one specially to help them. They think that they are not getting on, or else that they are going back. If that is so, try this little test: Pick out a few fairly difficult negatives you have already re-

touched some little time before and take just a rough proof from them as they stand. Next remove the retouching and get a proof from the unretouched negative, and now set to work and retouch it all over again. But do not look at either of those proofs; notice how long it takes you, and whether you find it difficult to know what to do or not. Just go right on and put on as much finishing as you can. When at last you feel that you have done it as well as you possibly can, just get off another proof, and now put the three together and compare them.

You probably will find, or at least you should, that the last proof is much better done than the first, that it is clearer, freer from dirty patches, has a nicer grain, and better-kept high-lights, and you will feel that all this came more easily and naturally, and probably it did not take you so long; and you will notice, also, that such little things as the high-lights on the lips and chin and the shadow under the lower lip are better finished in the last than in the former prints.

Now, all this is as it should be, and will encourage you. It will show you that, slowly and surely and almost unnoticed by you, you have been making progress and learning to *see,* and that is the best gift a retoucher can have, and you will find that the more you improve the more opportunities for practice you will get and the more ready other people will be to help you.

Just one word more. Whenever possible, try to see the printed results of your work. As the order is going out, look at it critically, notice what you might have done, also what you need not have done, and you will soon find yourself getting to know by instinct what finish to give, and then you will be what you started by wanting to be—a practical retoucher. —E. G. H. G. in *The British Journal of Photography.*

FEAR

FEAR—blind, unreasoning fear— is the basis of nearly all business depressions. Political economists may prattle; wiseacres may weave wondrous fabrics of explanatory words; but the fact remains that in nine cases out of ten most of the damage wrought by our frequent so-called "panics" is due to plain, unvarnished business cowardice.

The affairs of the world are so closely interwoven that no business-man can take any important action without its effects reaching far beyond his own immediate concerns. Every business institution is but a thread in the whole fabric.

It is the men of little faith, the men with little souls, the rabbits of the business world, who add the tragedy to panics. A very few cowards will stampede a vast audience of normal people. And a very few business cowards will send a thrill through the whole business world.

Every such man who fails to do his part in maintaining the equilibrium of business throws that much added burden on his fellows. Let there be enough of them and the burden may become too heavy to bear.

Let us all do our part, remembering that in hard times or good, the number of people who should use our product remains exactly the same; and that if hard times make it impossible for some of these people to buy from us, we are ourselves directly responsible if we have run to cover at the first sign of trouble.

You cannot lessen the purchasing power of Smith, who works for you, without at the same time curtailing the buying power of Jones, the grocer, Brown, the butcher, and an endless chain of other people. In the end, you, yourself, are the principal sufferer. —*Business.*

TONING GASLIGHT PAPERS IN FIRST DEVELOPMENT

AN ACCURATE SYSTEM FOR MAKING AN ENTIRE RUN EXACTLY THE SAME

BY SIGISMUND BLUMANN

REDEVELOPMENT is a time waster and costs not only for the time of several operations but for several chemicals. It is uncertain and depends on the accuracy with which the print is exposed and developed. The Sulphide tone is never the same on any two succeding prints and the softening effect on the emulsion is to be deprecated.

The Hypo-Alum process gives charming browns, but has been arraigned on the charge of shorting the life of the finished print. It is a slow method and also requires several operations.

Copper, Uranium and kindred toning processes are notoriously evanescent. The salts are not cheap and deteriorate quickly. It follows they will not do for the professional.

There is nothing new in what follows regarding the obtention of warm tones in first development—nothing new but this, a way of knowing just what one will get, every time, and how to get it. There is the advantage of the gain in time, in the expense of chemicals, and in the exactitude with which a long run may be turned out, the hundredth print being identical with the first. It is the old method of overexposing and diluting the developer, but now reduced to a mathematical equation.

The one chemical added to the usual developer is such as makes for a better finish and a tougher emulsion. On glossy paper the purple of gold toning may be simulated so well as to deceive the adept.

I want this article to be all kernel. A few preliminary warnings and bits of information and we get down to the actual work. Satrapol gives better results in great dilutions than Metol, but is not as satisfactory in black work. The formaldehyde should be so old and seasoned as to have a sort of cloudy, scummy precipitate. Shake it up till it looks flocky and use that way. Do not expect a better print in warm tones than the same negative gives ordinarily. This is not a process of reclamation or compensation.

Make your developer accurately and cleanly according to any formula you favor. Get the exact normal exposure on the particular paper you are using and accurately time the developer on that exposure. You now have your unit of measurement. The ratio for any particular will be as follows:—the exposure shall be the square root of the dilution. In other words, the developer shall be diluted from the normal by as many parts of water as the overexposure multiplied by itself. For instance, the normal exposure being five seconds by a certain light, overexpose four times (twenty seconds); the developer must now be diluted four times four times. That is, one ounce of the normal developer shall be made into one pint, or sixteen ounces. Again, the normal exposure is 5 seconds, expose 25 seconds and you have multiplied the normal by 5. The developer must be made into $5 \times 5 = 25$ times its volume.

The higher the factor the warmer the tone. True reds are obtainable. Development should be carried to the full, which is easily judged. The gradations working up to full tones by a sort of

doubled-toned appearance. Should this double tone be desired it is possible with a little skill to work accurately even so. But that becomes a personal matter and this is to be a mechanically perfect one.

On glossy papers use a hard grade, add a dram of the seasoned formaldehyde to each ounce of developer and dilute to your purpose. The exposure multiplied by four and the developer diluted by sixteen should now give a rich, purplish black. Not an amidol blue, but gold-purple. Raise the factor and you shall have more and more the effect of a Solio print.

The increase in exposure is not as time wasteful as may seem, since one may increase the intensity of the light instead of lengthening the time. I use ten thicknesses of onion skin paper over my square printing light and remove a thickness or two as the purpose demands.

It will be seen that there is a elasticity in these methods that does not detract from their accuracy. The personal element is not to be disdained where one print is to be made. It offers an opportunity for getting effects that Suphide, Copper, or Hypo-Alum cannot give. I have taken a portrait out of the tray in a half-developed state and washed it quickly, then fixed it in plain hypo and have gotten a flesh tint where it was proper and a dark tone on the textures that excited much comment and questioning. And that leads me to warn the operator against acid fixing baths and acid wash waters. Use plain hypo, one in four, and rinse between the developer and the fixing in plain water.

A peculiar fact that my experiments brought out was that the greatly diluted developer is useful, in fact, best, when it has oxidized to the verge of staining. When long runs are made, the printer should compensate in the exposure for the amount of silver and bromide liberated in the developer. This compensation is so small as to be almost negligible. It may be ignored anywhere this side of two dozen prints; after that just an eyeblink's hesitation should be added to the time of exposure. I count when I expose and for each print after the twenty-fifth I add one count.

If this process works as reliably in other hands as in mine, and there is no reason why it shouldn't, then the gallery printer can now turn out a dozen Sepias each of which shall be identical with the others and all have that true brown which is so hard to get by the redeveloping process.

AN IMPROVISED STRETCHER FOR CANVAS-MOUNTED PRINTS

BY "PROFESSIONAL"

Not often is an order given for prints to be mounted upon linen or muslin, but recently an order came in for half a dozen such prints from 11 x 14 negatives, architectural subjects of New York City. Not wishing to go to the expense of having stretchers made, I looked around the printing room and conceived the idea of employing one of the now disused 20 x 24 printing frames.

The frame was brought to light once more, the thick covering of dust removed, as well as the back, and a piece of linen was tacked upon it, by folding the linen over the sides, taking care to tack one side first, and draw the other over and tack that while a good tension was on.

As soon as this was completed it looked so good, that another frame was hauled out, and fitted in the same way, so the

surface was wetted or dampened all over, and two prints were wetted and pasted, then placed upon the linen and cautiously rubbed down upon the linen, so as to disperse any collection of air between the print and the linen; they were then stood on end to dry. Well, the next morning these prints were stretched all over so perfectly that they sounded like striking the head of a drum—they were simply perfect.

The consequence was that two more of the disused frames were fitted up and the order completed without one cent being spent for a new large stretcher, which could not possibly have made a better job in the finished work.

All that had been done to release the print was to slit the sides and ends with a penknife, then trim to size upon the cutter, when the whole set were made complete for delivery.

In this case the printing frames were neither spoiled or injured, the tack marks forming only a slight disfigurement, and this is of no consequence, because the frames were out of both date and practice, although they can be used again if necessary. This may prove of value to other photographers in case of necessity.

HOW TO MAKE A STUDIO PAY

VIII. ADVERTISING YOU CAN DO

BY FRANK FARRINGTON

For the man in the town small enough so that he can afford to use the local newspapers, there is no kind of advertising that will produce any better than the right sort of advertisements in those papers.

In the large city only the biggest studio, the one that claims a metropolitan prominence, can afford to use the expensive daily papers. The small dealer finds that only a small proportion of the circulation of the papers goes to people who are possible patrons and the rest is waste circulation which, however, he must pay for just the same.

Where a man can afford the newspapers he will find they will get his message to his public oftener and at a lower cost per capita than he can get it there in any other way.

Instead of using newspaper advertising occasionally it must be used regularly if it is to produce results. The man who advertises once in a while will not even get once in a while results. The man who "tries" advertising in the newspapers always finds that advertising does not pay.

It is the steady, systematic newspaper use that gets the business. You cannot expect to trace enough results to any individual advertisement to show a profit on its cost unless the case is a very exceptional one. The way to know your advertising pays is to note what your business was doing before you advertised and then to note the difference afterward. It is in general effect that the returns come.

Of course, a great deal, almost everything, depends on the kind of advertising you use. Poorly written, uninteresting advertisements will not be read, or if they were read they would not get any returns.

You ought to have the same space in the paper all the time. Don't let them change you about from page to page or from column to column. You are going to try to make your advertisements interesting enough so that people will look for them, so they will read them week after week. See that they are always to be found right in the same location.

Then change the advertisement every issue of the paper. You cannot expect people to read the same advertisement over again. They would laugh at the paper that reprinted the same news item two issues in succession and advertising is admittedly less interesting reading than news matter.

HALLIE ELIZABETH WILSON, BERLIN, N. H.
WOMEN'S FEDERATION P. A. OF A.

Select a good position and pay extra for it if necessary. To accept regular space in a corner of the sporting page would not get you very many readers of the class you want to reach. Unless your work is a specialty kind, you want to reach the ladies, the women of the house. See that your advertisement is put where it will be seen by them. This means that a position next to that of the big dry goods store advertisement will be a good one.

The size of your space will depend on the size of your business and on how much you can afford as an advertising appropriation. Most retail businesses find that something like two per cent. of the gross receipts of the business will make a fair advertising expense.

Three inches, single column, is about the smallest space a studio can use and this would appear insignificant in any but a large daily paper. Rather than use so small a space I would suggest it would be better to use space only every other issue. Six inches, single column, and from that up to six inches, double column, makes a good size for studio advertising.

In starting to use advertising, or in starting to put new life into the advertising, if you already have none, I advise getting a name plate. This is simply an electrotyped reproduction of the form of signature you use on your photographs. Your name should appear in the same form in *all* your advertising in order that it may be recognized at a glance and gain in value with its growth on familiarity. This is a case where familiarity does not breed contempt.

BY BAYARD WOOTTEN NEW BERN, N. C.
WOMEN'S FEDERATION P. A. OF A.

In writing your newspaper advertisements, do not try to put too much into them. Don't tell it all to-day. Save something for next time. If you can impress on the reader's mind some one

point, some one fact about your business, that is enough for one advertisement. One point well impressed has a value. A dozen points, none of which sticks in the reader's mind, have no value at all.

What is said should be said in the fewest possible words, in short, carefully-worded sentences. Long sentences look complicated as the eye glances at the advertisement and the tendency is to pass on. Short sentences on the other hand, look inviting.

ETHEL C. STANDIFORD, LOUISVILLE, KY.
WOMEN'S FEDERATION P. A. OF A.

Put an attractive heading on the advertisement if you would have people halt there. Don't try to be "smart" with the headline or with the rest of the advertisement. Have this line catchy and clever, if possible, but avoid any tendency to be sensational. Leave the sensational headlines to the sensational newspapers. And, by the way, it is worth while for the man who writes advertisements to study the headlines of the well-edited newspapers, and see how they manage to get into a very few words

BY MAYBELLE GOODLANDER, MUNCIE, IND.
WOMEN'S FEDERATION P. A. OF A.

the sense of the matter below and do it in an attention arresting manner.

The heading ought to be indicative of the contents of the advertisement, but it ought to appeal to the reader's point of view rather than to the writer's. You are writing the advertisement to interest the incidental reader with a view to getting him to read about your studio and something it does. In writing it think "you" rather than "I."

Don't try to be funny in your advertising. You will fail, and if you were to succeed you would not succeed in being anything but funny and that will not bring trade. Be decently dignified, but don't be so much so as to appear cold blooded. Be interesting, and if you can't be interesting, be as interesting as you can.

Your advertisement is your way of making your reader want the goods without seeing them. The better you can make that reader see the goods you have to sell, the more realistically you

present them to his mind's eye, the more certainly you will get results.

Use care in writing your advertisement so that it will be easily read as you intend it. It will be up to you to stand behind mistakes in the advertisement as it appears in print, so it is wise to make it possible for the printer to know what you want printed.

Make a carbon copy of every advertisement and file this along with a copy of it clipped from the paper. Do this systematically and you will always have a complete documentary record of the transaction.

It is well to get personally acquainted with the printer who sets up your advertisement. Get on "the right side" of him. Pass him a few cigars. He will use additional care then in arrangement and display that will pay. The printer can make or mar any advertisement if he will.

BY BAYARD WOOTTEN, NEW BERN, N. C.
WOMEN'S FEDERATION P. A. OF A.

If you use a single column space a three short words heading will be the best, for this means a one-line heading.

BY ADA BUNKER BUTLER. IND.
WOMEN'S FEDERATION P. A. OF A.

You can use perhaps five words and make it a two-line heading that will be easy to read.

If you use double-column space a headline of four words should be the limit. Four words is all the eyes will take in at a glance.

Place the name plate at the foot of the advertisement. Only in very large space is it necessary to put it at the head also, and as a heading itself, the name of the studio has no value. No one is likely to read below it, though they may see the heading and be reminded of the gallery. It would accomplish that effect, however, if the advertisement below were omitted.

If you can use double-column space it will enable you to give up some room around the edges to white margin to make the reading matter stand out better. White space has a remarkable value as a help to display.

In the headlines do not try to make them prominent by the use of capital letters. A line all in "caps" is much harder to read than one in capitals and small letters, using the "caps" for the first letter of each important word. Se-

cure prominence by using larger letters or those with a blacker face.

If heavy, black words are wanted for sheer conspicuousness, use "Gothic" type. A Gothic headline in "caps" and "lower case," of about what is called 18-point size is suitable for the top of the 6-inch, double-column space. For a single-column space you could not to advantage use larger than 14-point size in Gothic, though 18 point would do well in a thinner letter, such as the "De Vinne."

For the body of the advertisement use 12 point in the double column, unless you want to say more than you can get in in that type without crowding, when 10 point may be used. Ten point is large enough for single column, but anything smaller is not easily read. Ten point is about the usual magazine size of type.

The more intelligence the advertiser has about the mechanical part of the making of his advertisement, the better. I believe it will pay any advertiser to study up type faces to know which ones are easily read, which ones are artistic and suitable to his use. The studio particularly should avoid crude-looking advertisements and use those that will appeal to the eye as being suited to the business.

Your printer will lend you a type foundry catalog so you may study types. Look through the paper in which you are advertising and note what types they are using that you think would fit in with the style of letter in your signature or name plate.

Here is a set of samples of the sizes of body matter type in the ordinary Roman type. Thus you will see how the sizes run, going on up to 48 point in display type and larger in the big, wood letters for posters:

When in the course of human events. 6 point.
When in the course of human events. 8 "
When in the course of human 10 "
When in the course of hum 12 "

Newspaper advertising is advertising of the day and it ought to be timely. It may have reference to local events and it should make the most of opportunities to suggest studio work for such events when appropriate.

Prices ought to be quoted in newspaper and in all other advertising. You have mighty few patrons who can afford to buy without knowing the cost and those few will not be deterred by knowing it. Most people must know before buying and, if the price is high, the sooner they know it, the sooner they will grow accustomed to it; while if it is low, the sooner they know it, the sooner they will buy.

Put your reasons right into your advertising. Don't say "Come in and let us tell you why you should buy this kind of photographic supplies," or "Come in and we will tell you why our photographs are the best." That will not bring people in. Tell them why right there in the advertisement. Instead of reading your invitation to come in and find out why, they will then be reading the reasons.

Put your talk in simple language without too many adjectives. Don't use superlatives often. If you start in calling everything the best, you will soon find no words left for something that is really head and shoulders above the rest.

In the next chapter we will discuss other forms of advertising than those of the newspaper.

Previous Articles, "The Man and the Location" (Oct.) "Buying and Arranging the Stock" (Nov.) "The Treatment of Customers" (Dec.) "System in the Studio" (Jan.) "How to know the Profits" (Feb'y) Credit and Collections (March) Developing the Side Lines (Ap'l.) Subject next month: "Advertising You Can Do."

BY N. BROCK

ASHVILLE, N. C.

N. BROCK

BY BAYARD WOOTTEN

About twenty-two years ago I studied painting in New Bern, N. C., with Mr. Gerock, a photographer. One afternoon I was struggling most helplessly with a little landscape, when a green and embarrassed country youth edged his way into our work room. He had come to study photography and I acknowledged an introduction to Ignatius Wadsworth Brock. As I pondered in amusement over the awkward name, my eye quickly took in an equally awkward personality, expressed in unkempt hair, a yellow cravat, and socks of different colors. With indifference I settled back to my work. Presently I was conscious of an involuntary criticism of my picture given with an assurance that only comes from an accurate knowledge of the subject in hand.

And this was my first meeting with N. Brock, a man whose wonderful skill and ability the world of photographers have since come to rank as a master man. Their appreciation has been expressed in many ways, the most recent in being chosen as one of the best ten photographers in America by the Society of Professional Photographers of Pennsylvania.

N. Brock stands alone, unique in every way. Some one has said that genius is like a tower that stands by the lock on the canal, and every so often, once in a generation, will rear its head far above the ordinary level, and look down upon the stream of humanity, as it sluggishly drifts by, from a viewpoint that they neither see nor understand. And so the family of farmers to which he was born no more appreciated his rare talent than did I when he had the audacity to criticise my little, old painting. His father tried until he was nineteen to make a farmer of him, and then in disgust gave his consent for him to go to town and study picture-making. And study was literally what he did, for he was taught nothing. The dark-room was turned over to him and his equipment of ancient formulas, and equally ancient chemicals. Brock literally worked out his own salvation, and his success should be an inspiration to all those who strive and have not arrived. Very busy were these years and often he was so absorbed that he worked far into the night.

N. Brock was an artist born, and at this time proved that the camera was only an end to a means with him. He expressed himself with ready fluency in all mediums. Many of the paintings that were the product of this period are still treasured as household gods by their owners. But he had not yet found himself. He worked because he loved it, with little appreciation of the artistic value of his paintings or of their money worth. On one occasion he was just finishing an out-of-door study in oils when a casual passer in the studio bought it for $35.00. The next day a man offered $200.00 for it. The thing to take note of in this little story is that Brock was painting pictures of sufficient value to separate people from their good dollars, though he had never taken a lesson in painting or drawing. And so it has always been throughout his remarkable career, he intuitively knows what the rest of us spend our lives studying, and, after all our study, only understand in a blurred way. The customers for his pictures were not brought him by influential friends. He had none. He was too crude and awkward, and so absolutely engrossed in his work that he was indifferent to people. This attribute he still keeps.

He who would know Brock will have to delve into a crusty exterior, but if he preseveres he will find a mentality of wondrous logic and beauty, and he will no longer marvel at the exquisite refinement of his pictures. His work to-day shows the road by which he has arrived. His pictures are portraits, portraits into which he pours his whole personality, and are free from the stereotyped way into which so many photographers have fallen who have served apprenticeships in other studios. Brock served no apprenticeship; when he came he took charge.

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The Brock mind is a rare type, and so many-sided that it cannot be taken in at a glance. When one hears him discuss composition, and sees how an appreciation of law underlies all of his own work, he realizes that it is a subject that he has mastered. Criticised from a chemical standpoint, his negatives show a knowledge of chemistry that few photographers have, and which justify the conclusion that he has been trained in the best of laboratories. In this he shows his ability to study and make his what the people who have gone before have given to the world. There are few minds that can do this and still adapt themselves to new conditions, and make

BY N. BROCK
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independent investigations for themselves. This Mr. Brock is constantly doing. His study of light and lighting is very original and will probably result in a Brock Method. For years he has used artificial light for various purposes. His latest performance is harnessing it in a case that he planned himself, which concentrates it in a small space, and can be readily moved where he wants it. This he uses on the shadow side of his subject to produce the sparkling highlights that his pictures are famed for, and his sky-light gives those luminous shadows that only the masters of photography get. Where is there another mind that can excel in these three things: composition, chemistry, and lighting? Is it any wonder that his pictures have been awarded every honor that the American public can give?

BY N. BROCK
ASHVILLE, N. C.

BY N. BROCK
ASHVILLE, N. C.

And with all this wonderful depth and breadth of mind his personality is most remarkable and at times amusing. Twenty-two years have elapsed since I first saw him in his mismatched socks and yellow cravat, and the only change is that he has laid aside the yellow cravat, and he is now N. Brock instead of Ignatius Wadsworth. He is still wears his mismatched socks and seldom has time for a hair cut. Now he counts among his friends the foremost men of the profession, who love him and smile at his peculiarities. They knew his work before they met him. Mr. Todd, of Chicago, had the distinction of introducing him at the St. Louis Convention. The photographers were giving a reception, and it was whispered that N. Brock was to be there. When the National Association of the Photographers of America puts on its best clothes and goes to a reception they are a goodly sight. Mr. Brock was decidedly conspicuous when he was presented to them in the same garb that he had worn in a half-day's jaunt around the city, with his shoes all dusty and his hat stuck in his pocket. There was a blank pause, for they did not know whether to give him the glad hand or not. It might be one of Todd's practical jokes and this was not N. Brock at all.

Many and varied are the experiences that his friends have had with him. I told him I was going to write an article about him, which I should call "N. Brock, Artist-Photographer." He just snorted, and told me how, on one occasion, Pirie McDonald, the world-famous photographer "for men only," wrote him a letter addressed to N. Brock, Artist Photographer. When he received it he read the address and dropped it into the waste-paper basket; after a time another came addressed the same way. It also found its way to the waste-paper basket. And still another came, but it was addressed to N. Brock. He answered it by return mail These are just a few side-lights that make him most interesting to a public that smiles indulgently because it is Brock. They would not be tolerated in any one else.

A short while ago I was coming out

BY N. BROCK
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ASHVILLE, N. C.

of his studio with him, and we paused in front of a show case that contained some of his happiest creations. He was explaining how certain effects were produced when a man stopped to listen, too, and, as Mr. Brock finished his comment was "If you want some sure enough GOOD photos. just go to that studio on the corner. They are making the best ever, six for fifty cents." After all, what does it amount to? It all depends upon your viewpoint. To the casual passer-by, Brock is a joke; to the inventor, a kindred spirit; to the chemist, a marvel of profound thought; to the artist, a GENIUS.

A COMPOUND FIXING-BATH FOR DELICATE NEGATIVES

BY GEORGE SMEE

FIXING the negative, yes; did you ever study that simple, yet very important part of the photographic process?

Have you not often noticed how the highlights are eaten away when the negative has become what is called completely fixed; and have you not noticed how differently a properly-made new fixing-bath works compared with an old one; more than this, have you ever observed how different the quality of a negative is when it is fixed in plain hypo and when it is fixed in an acid hypo bath?

All the delicate qualities, so necessary in a negative, are very often eaten away in the acid fixing-bath, while they are retained in the negative that was fixed in the plain hypo.

BY N. BROCK
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The acid fixing-bath was devised particularly with the object of hardening the gelatine film at the same time that the fixing was performed; an advantage, it is true, but, when a negative is required, that must possess and retain all the fine detail in drapery, without loss, the plain hypo fixing-bath has proved to be unapproached. Some five years ago I tried a fixing-bath for negatives that was said to increase the density or to intensify the negative at the same time that the fixing operation was in progress. This bath had as one of its component parts, proto-sulphate of iron. As a fixing-bath it was a complete failure in my practice, and I found, upon inquiry, that it proved to be the same in the hands of others.

BY N. BROCK
ASHVILLE, N. C.

For the past year I have been using a very simple fixing-bath that retains *all* the delicate details in the negative, without any eating away of any portion whatever; at the same time, a very faint acid reaction is indicated by blue litmus paper and a slight hardening takes place at the same time without the use of either the common or chrome alum, or formaldehyde. Now, it is always considered that results count, and as good results have been given by this particular fixing-bath, it is here published for the benefit of other photographers besides myself, whose aim is to secure the best negatives possible.

Sodium Magnesia fixing-bath:

Water (warm)	64 ozs.
Sulphate of magnesia (Epsom salts)	4 "
Hypo-sulphite of soda	20 "

It is not necessary for the water to be hot and the mixing may take place either in a large glass bottle or in a stoneware pitcher.

When the sulphate of magnesia and hypo-sulphite of soda are dissolved, the liquid should be strained through muslin, owing to the presence of both chips and dirt, which must always be kept out of this fixing liquid so as to aid in securing the best results.

BY N. BROCK
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This fixing liquid has been used continuously at 75 and 80 degrees without any detriment, the sulphate of magnesia acting as a mild hardener without interfering with the fixing properties of the hypo.

No frilling has ever taken place with

BY N. BROCK
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this fixing bath, although the changes of temperature have been sudden, from fixing to washing. Negatives fixed in this lose no detail whatever; either in the highlights or the shadows.

The fact must not be overlooked, that the composition of the fixing-bath has a great deal to do with the resulting color of the negative, and the color has a marked influence upon the resulting print.

To get the right kind of print; one that will render the texture of everything artistically, it is necessary to produce the right kind of negative, the fixing-bath has as much to do with the result as the developer. The tendency I have always found in this particular fixer is to bring about a soft negative, although the developer may have been the means of the production of considerable contrast.

Any sediment that may be formed should be separated by either decanting or simple filtering.

When it becomes sluggish in action, it should be cast among the other waste solutions, for throwing down the silver, and a new bath made without delay.

ALUMINUM AND GOLD TONING

BY "PROFESSIONAL"

LAST Summer a customer called and wished to have some prints made from negatives supplied by himself; the prints were to be toned to a red-brown color, not at all like a print simply fixed in hypo, or like a uranium toned print.

The negatives he had brought from abroad, 8 x 10, all portraits, and the prints he showed were superb.

This color print I had seen before, and knew that there was but one way to secure the tone wished for, although the color would not suit the general run of work. A gelatine printing out paper was used of the hard or tropical variety, and a toning bath was used, made from a formula presented to me three years ago. The color produced scarcely looked like a toning at all, when the prints were finished and dried; it was just the rich, red-brown that was ordered; and corresponded exactly with the sample prints. So for the benefit of those who at some time or other may be called upon to fill an order under like circumstances, the formula is given here, just as it was presented to me, and which has worked out to complete satisfaction:

ALUMINUM GOLD TONER.

Chloride of Aluminum.....	50 grs.
Boiled Water	50 ozs.
Bi-carbonate of Soda.....	240 grs.

The water used was heated slightly, and the contents completely dissolved and stood upon a slate slab for an hour; when it was quite cold, four ounces of a solution of chloride of gold was added, consisting of one grain of the chloride to each ounce of water, and used right away. Although the color of the print did not indicate that much gold was being used, it was being taken up for a certainty, because more gold must be added for every twelve 8 x 10 prints.

The fixing was done in a plain hyposulphite of soda bath (with no additions) indicating 20 on the hydrometer or argentometer, such as is used for testing the strength of hypo, and well washed as well as each print being wiped over the surface with a bunch of absorbent cotton while the print rested upon a glass plate.

Upon trial a week afterwards, the bath worked satisfactorily by the addition of a small quantity of gold.

BY N. BROCK
ASHVILLE N. C.

TRANSLATIONS AND ABSTRACTS

BY E. J. WALL, F.R.P.S.

The Raydex Color Process

Welborne Piper describes this process as follows:— bromide prints are made from the three constituent negatives, care being taken to cut the paper the same way so that they may have an equal stretch, they should be exposed for the same time, the correctness of this being judged by the print from the negative taken through the green screen. When the prints are finished they should be soaked in water whilst the color sheets are being prepared, which is done by soaking them in water and then immersing for two minutes in a special solution, rinsed and brought into contact with the bromide print under water, squeegeed together and put on one side for twenty minutes. The two are then pulled apart, the bromide print being washed and the color sheet being squeegeed down to a sheet of waxed celluloid. After ten minutes the celluloid and the adherent color sheet are immersed in water at 110 deg. F. and developed like a carbon print. The other two color prints are obtained in the same way and transferred one on top of the other, the yellow being at the bottom and if necessary transferred to a final support.—*B. J. Color Phot.*, 1914, p. 5.

This is nothing more than the ozobrome process applied to three color work. In conjunction with Manly I made such prints about 1907. The chief trouble we found to be the unequal expansion of the paper.

Prints from Autochromes

Ungener proposes to make prints from autochromes by first making three monochrome negatives through the usual filters. Baryta paper is coated on the back with a 3 per cent. solution of gelatine, to which a little chrome alum is added, to prevent stretching, dried and then soaked in water and sensitised with the ordinary ferroprussiate sensitiser and exposed under the red filter negative, then developed dried and immersed in a celluloid varnish. When dry the blue impression is again sensitised with bichromated fish glue and albumen and exposed under the blue filter negative, with accurate superposition, then laid for about fifteen minutes in cold water and stained up in aurophenin till of the correct shade, and then well washed and dried and coated with 2 per cent. collodion, again coated with the bichromated fish glue and exposed under the green filter, washed and stained up in erythrosin. After washing the print is immersed in sulphate of copper solution.—*E. P.* 17979. 13.

The Half-Watt Lamp

Recently before the Croydon Camera Club, Mr. W. H. Smith showed some portraits obtained with this new lamp of 2000 candle power and with a tracing cloth diffuser four feet from the sitter he was enabled to obtain fully exposed negatives on a rapid plate in from one-third to one-half a second. He had also tried it for printing and thought that at about four inches from the center of the bulb the printing efficiency was about that of diffused summer sunlight.—*B. J.*, 1914, p. 135.

The Best Strength of the Fixing Bath

About a year ago Piper published some notes on this subject and stated that a 40 per cent. bath fixed quicker than any other. Attention is again called to this and the results confirmed.—*B. J.* 1914. p. 134.

If rapidity of fixation is a consideration it would be as well to use ammonium hyposulphite, which may readily be made by the following formula:

Hypo	400 g.	6¼ ozs.
Sal ammoniac	173	2¾ "
Hot water	1000 ccs.	16fld. "

Of course pure ammonium chloride may be used but the ordinary sal ammoniac, as used for battery work, is quite good enough for the purpose and much cheaper. This has also the advantage of washing out much more quickly than the soda.

Albumen Emulsions

Lehmann and Knoche have been experimenting with albumen emulsions and give the following method of making one:

A

Ammonium bromide ...	23 g.	161 grs.
Albumen	1000 ccs.	10 fld. ozs.

B

Silver nitrate	34 g.	238 grs.
Distilled water	1000 ccs.	10 fld. ozs.

Add B to A slowly and with constant stirring, any albumen that separates out will redis-

solve. Heat the emulsion for three hours at 140 deg. F., then coat on glass and dry either cold or at a temperature of 230 deg. F.; the use of the latter increases the speed to thirty times the original, whilst drying at a low temperature only gives an increase of twenty times. Fast emulsions were also obtained by adding 0.5 per cent. of ammonia to the albumen before adding the silver, then after coating immersing in silver nitrate solution and washing and immersing in bromide solution. The important point is that increase of speed is obtained without increase of the size of the grain.—*Zeit. f. Repro.* 1914, p 8.

THIS observation is decidedly interesting as in the case of gelatine emulsions there is always increase in the grain with increase of speed and for years emulsion makers have been trying to make fast emulsions without the coarseness of grain. If anyone can find out how to do this and also how to obtain the whole of the silver halide of one speed there is a little fortune waiting for him to pick up.

HYPO ELIMINATORS

OHLANDT has been studying this subject and finds that whilst potassium percarbonate is very efficient it alters the tone of printed out papers and therefore he recommends the use of 1½ per cent. solution of hydrogen peroxide, rendered alkaline with ammonia. The prints should be well rinsed and then immersed in the bath for ten minutes and then washed for a brief time.—*Apollo*, 1914, p. 19.

Except when one is in a very great hurry and it is immaterial whether the prints are permanent the use of all hypo eliminators is mere waste of time and money, especially when one considers that six changes of water in an hour is quite sufficient to remove all the hypo. They can only act by converting the hyposulphites of silver and soda into higher compounds and there is no proof that these are more permanent or more readily washed out than the hyposulphites themselves.

THE INFLUENCE OF THE QUANTITY OF DEVELOPER

LUEPPO-CRAMER finds that of two equally exposed plates the one developed with a small quantity of developer gave fewer numbers under a Chapman Jones plate tester than when more developer was used. He states that metol and ferrous oxalate show less marked differences than pyro, glycin, pyrocatechin and hydroquinone.—*Phot. Ind.*, 1913, p. 1849.

This is not a true test because obviously the two plates were not exposed together, and no one can guarantee that there is no change in the light.

A NEW METHOD OF TESTING PLATES AND FILTERS

The following method of testing the color sensitiveness of plates and the action of light filters is obviously somewhat empirical, but it has the merit of being at least practical. Hargreaves suggests the use of a Paget Taking color screen, exposing the plate thereunder, then making a positive and viewing the results with the Paget viewing screen. With an ordinary plate the whole has a blue-violet tint and white clouds on a blue sky show the same shade as the sky. With an ortho plate there is practically no improvement and it is only by the insertion of a filter that the green begins to act, but there is no trace of red. Only with the use of panchro plates does the red act. He also finds that the Wratten & Wainwright panchro plate with a K3 filter gives correct color rendering.—*Phot. & Focus*, 1914, p, 106

DEVELOPMENT IN THE TROPICS.

PROF. SOTILLO strongly recommends the following developer for use in the tropics, as it gives soft negatives without that excessive contrast so often met with:

Metol	1 g	18	grains
Sodium sulphite anhydrous	15 "	270	"
Sodium carbonate anhydrous	10 "	180	"
Hydroquinone	2 "	36	"
Potassium bromide sat. sol.	1.5 ccs	25	minims
Water to	1000 "	70	ozs.

This is for tank development at 70 deg. Fahr. and the time is 15 minutes. An acid alum fixing bath is recommended.—*B. J.*, 1914, p. 213.

A NEW STAIN FOR WOODWORK.

G. T. HARRIS recommends a solution of diamidophenol (amidol) in a little sodium carbonate solution for staining wood. It appears to be immaterial as to the strength, as repeated applications will deepen the color of the stain, which only requires oiling with boiled linseed oil to darken the depth and richness.—*B. J.*, 1914, p. 214.

CRACKED NEGATIVES.

Whilst not new the following explicit directions for mending a cracked negative so that it can be printed from, may be useful. As a rule the damage is confined to the glass, the film remaining intact, at least for the time being. Take a solution of canada balsam in xylol or benzole, place a thin glass rod in the bottle and look through it by holding it against the light. If the portion of the glass rod that is in the balsam is invisible, the balsam is about right; but if it can be seen to the bottom of the bottle the solution is too thin and some of the solvent must be allowed to evaporate. Having obtained the solution of the same refractive index as the glass, gently open the crack and fill it with the balsam; close it by laying the negative film down on a level surface. Pour a small pool of balsam on one end of the negative as it lies glass uppermost, then gently lower a piece of thin clear glass in such a manner as to drive the balsam

to the other end as the glass is lowered. Place in a slow oven to harden.—*B. J.*, 1914, p. 215.

Toning With Liver of Sulphur.

Rawkins states that the following bath gives tones on bromide papers which closely resemble those obtained with the hypo-alum bath, only colder, and it has the great advantage of having no reducing action on the depth of the print. With development papers the tones are a beautiful sepia and the operation is complete in less than ten minutes:

Liver of sulphur	12.5 g	¼ oz.
Hypo	25 "	½ "
Water	1000 ccs	20 "

The liver of sulphur should be washed clean until it shows its true color—a deep brown. The temperature should be 80 deg. Fahr., and therefore it is advisable to use an acid alum fixing bath, and the prints need only be rinsed and passed direct into the toner. After toning the prints should be washed and gently sponged off before drying. The bath does not keep and must be made fresh each time.—*B. J.*, 1914, p. 218.

This is nothing more than Fenske's bath (see Wilson's, Feb., 1914, p. 84) and the only novelty is the washing of the liver of sulphur. Whether this is of any specific benefit is open to doubt. I have made a lot of experiments with this salt of late and hope to publish the results in a short time; at present it seems to me to be the best and most ductile toner that we have.

Compensating Filter for the Paget Color Plate.

Von Huebl states that the panchro plates furnished by the Paget Co. for their duplicating color process appear to be sensitised with isocol or a similar mixture, and that the relative red, green and violet sensitiveness is very similar to that of the autochrome plate and that therefore a compensating filter of almost the same compensation can be used and he specifically recommends one containing filter yellow K 0.5 g. plus acid rhodamin 0.03 g. per square meter. The Paget plate only requires half the exposure of the autochrome.—*Wien. Mitt.*, 1914, p. 2.

Dyes for Color Screens.

Koenig points out that one of the most important properties of a yellow dye for filter work is the absorption of the ultra-violet, and in this respect filter yellow and pyrazol yellow are ahead of all others, even of tartrazine. Aurantia, which is often recommended, is a brownish-yellow dye and actually absorbs some of the yellow-green rays and should not therefore be used. For occasional scientific work a yellow filter is required that transmits the whole of the ultra-violet and this can be made with nitrosodimethylanilin. He lays special stress on the purity of the dyes, as otherwise the screens are not quite transparent, and on the accurate quantity of dye per given area, as only by attention to this can correct absorption be attained; for the same reason the use of collodion is excluded, but if required auramin and spirit soluble light and dark yellow are the ones to use.—*Phot. Rund.*, 1914, p. 81.

A New Developer for Bromide Paper.

M. Petitot states that he has found the following to be the best developer for bromide papers, particularly in enlarging, and that by increase of exposure and dilution of the developer warm tones can be obtained:

Metol	6 g	42 grains
Sodium sulphite anhydrous	45 "	315 "
Gallic acid	7 "	49 "
Tartaric acid	5 "	35 "
Water to	1000 ccs.	16 fld. ozs.

This gives warm blacks, but if diluted with an equal quantity of water the tones become warmer. Development takes about ten minutes at 60 deg. F.—*Photo-Revue*, 1914, p. 77.

Gelatine Reliefs.

Namias recommends the following for obtain gelatine reliefs:

Soft gelatine	300 g	4¾ ozs.
Glycerine	10 ccs	70 minims
Water	1000 "	16 fld. ozs.

Cut the gelatine into small pieces and allow to soak for an hour, then melt by the aid of a water bath and filter through muslin and add

Glacial acetic acid	15 ccs	105 minims

and allow to stand in hot water till all air bubbles have escaped. Glass of the required size should be thoroughly cleaned, old negative glass is excellent, and the edges should be rubbed with a bit of beeswax or a hard candle. Place the glass on a levelling stand and pour from 27 to 36 ccs of the above solution on every 100 square centimetres (this is about 27 to 36 minims per square inch). The plates should be dried at a gentle heat and will keep any length of time, particularly if placed between paper that has been immersed in a 5% solution of carbolic acid. For sensitising the following is used:

Ammonium bichromate	40 g	280 grains
Sodium citrate neutral	10 "	70 "
Water	1000 ccs	16 fld. ozs.

Immerse for at least five minutes at 70 deg. Fahr. After sensitising the plates will keep for about seven days.

Exposure should be made under a very hard black and white negative and preferably to direct sunlight, the printing frame being placed at the bottom of a deep box, so as to obtain as nearly as possible parallel light. Insolation must be stopped when the slightest tint ap-

pears under the densest parts of the negative. The plate should then be painted with a narrow edging of rubber solution, or celluloid in amyl acetate, and allowed to stand for at least an hour for this to dry. To swell the gelatine immerse the plate in a 0.2% solution of sulphuric acid till all yellowness disappears from the film, then soak for a few minutes in a 10% solution of alum and wash for ten minutes. Superficially dry the plate and take a cast in 100 parts of plaster of Paris with 60-80 parts of water, placing strips of glass round the edges of the plate so as to form a dish of about 2-3 cm deep. If a wax mould is desired then the following should be used:

Yellow wax	600 parts
Asphalt	200 "
Stearine	200 "
Lard	100 "

adding as much graphite as possible without the mixture losing its fluidity.—*Il Progress. Foto.*, 1913, p. 200.

Projecting Autochromes and Ordinary Slides.

Before a recent meeting of the Société Française M. Wallon pointed out that when autochromes were projected alternately with ordinary slides the latter were extremely unsatisfactory, owing to the great brilliancy of the light, and suggested that the remedy was to simply use a spoiled autochrome plate, denuded of its gelatine film, as a screen between the ordinary slide and the condenser.—*Bull. Soc. Franc.*, 1914, p. 53.

The Action of Manganese Dioxide in Acid Amidol Developer.

M. Cousin recently stated that Balagny's acid amidol developer, which is supposed to develop from the bottom of the film, gives much greater sharpness with Lumiere's simplex plates than with any other kind, and this he ascribed to the action of the non-halation film of colloidal manganese dioxide, which is first coated on the glass. To confirm this a plate was exposed and immersed in a solution of amidol 0.5 g., sodium bisulphite lye 5 ccs., water 100 ccs. After some hours there was not the slightest trace of an image, but on adding a small lump of manganese dioxide, the immediate neighborhood of the same instantly blackened and on rocking the dish the whole plate developed.—*Bull. Soc. Franc.*, 1914, p. 83.

Just how the addition of the manganese salt could affect the sharpness of the image is not quite clear. That it would affect the developing power is obvious, for manganese sulphite would be formed, thus neutralising the excessive free sulphurous acid in the bisulphite lye, so that the developer becomes neutral and the amidol would then, of course, at once develop.

Reproducing Autochromes on Paper.

M. Carrara describes his method of making carbon prints from autochromes. The autochrome is placed in an ordinary autochrome reproducing box in contact with a panchro plate, a Nernst lamp being used in conjunction with the necessary analysis filters, a sheet of ground glass being placed in front of the light. The exposure through the red filter for an ordinary density autochrome is about 30 seconds, that for the blue and green being 90 seconds. All three negatives are developed in the same dish with rodinal 1 to 20, for 5 minutes. In order to destroy to some extent the structure of the grain a border mask of note paper was inserted between the plate and autochrome, and to still further reduce the structure, especially of the blue printing negative a sheet of thin celluloid is placed between the negative and carbon tissue whilst printing. Autotype tissues were used and sensitised with an alcohol solution of ammonia bichromate, 4% for the red and 3% for the yellow and blue tissues. For printing in the sun the printing times were 8½ times Watkins standard meter tint for the blue, 6 times for the red and 5 times for the yellow; this means that all three negatives can be printed in about one minute. Celluloid was used as a temporary support, and a 5% solution of hard gelatine being used to cement the prints together.—*B. J. Col. Phot. Supp.*, 1914, p. 10.

The Prevention of Amidol Stain

T. Trevelyn states that the addition of alum to an amidol developer prevents any tendency to stain either the hands or papers and gives the following formula:

A.

Amidol	8 g	56 grains
Sodium sulphite anhydrous	37.5 "	253 "
Potassium bromide	.5 "	3.5 "
Water	1000 ccs	16 fld. ozs.

B.

Alum	50 g	350 grains
Water	1000 ccs	16 fld. ozs.

Add one part of B to twenty parts of A just before use. Either potash or chrome alum may be used. For negative work the temperature of the developer may be considerably raised without any fear of frilling. At the ordinary temperature the development is slightly prolonged.—*B. J.*, 1914, p. 198.

EDITOR'S TABLE

Getting Your Price.

To be really strong in maintaing fair prices you must be content to start in a small way, make a reputation for good work, always uniform, and turned out with promptitude. Deal only with good business firms who pay up promptly, and give them business-like terms. Don't be too craving for business unless it is good business. Advertise by every possible means that you do good work, and in the end business will come to you instead of your having to go after it You can then demand your own prices, and you will get them if they are fair. The good business man —the successful business man—is never a cut-price man. You may point out instances where the contrary seems to be the case, as in some big retail stores which appear to have been built up upon the principle of small profits and quick returns, but if you are able to penetrate deeper into their methods you will see that the secret of their success has been good system. They have ascertained in the minimum profit at which business can be conducted, and how much they can save by good management and cash transactions, so that in this way they get the pull over competitors who never know just how they stand. The moral then is obvious: that you must shape your business methods so that waste and loss are reduced to a minimum, and thus turn out at a fair price better work than your neighbor and *with greater punctuality*. And remember first, last, and always that the photographer must study and practice business methods just as much as he practices the technique of his profession. Yes, even more, for the average photographer has often a predisposition toward photography and has often a positive aversion to business.

Business elements should not absorb or swamp the artistic sensibilities, but must be present as the motive power under which, if properly directed, the artistic qualities of the studio are to be made to improve and grow in value year by year. We are never to surrender our artistic ideals, but always do the kind of business that will bring money returns.

The True Value of Conventions.

It seems hardly necessary, at this day and time, that anyone should be called upon to show the value of conventions in any walk of life, but more especially in ours, which combines so much of the artistic with so much of the business phase. The great idea of the times is centralization; we find it in business, in the immense trusts and combines, which are nothing more or less than perfected conventions of the highest type; we find it in the social world, where the classes naturally adapt themselves along the lines of their personal likes and dislikes; and we find it in the politics of the world; and in labor circles as well.

A convention, which, in its primary meaning, is a coming together, is a part of civilization, a part of progress, and an important part. Every being who has the power of conveying feeling by sound feels the need of associations, and asociations are conventions of the simpler type. Men cannot meet without exchanging experiences, and all talk is but the exchange of their experiences, either real or imagined. The wisdom from books is not the practical wisdom of the world; it is the wisdom from experience that makes successful men—men who profit by the mistakes as well as the work and success of others. This, then, is the first object of a convention, and in this object there is the meat of what is sought after. "In much

deliberation there is much wisdom," says some old proverb-maker, and he puts in a nutshell the value of conventions. In every word spoken there is a hint, in every experience detailed a suggestion for the future, and, if we can but grasp these potent facts, we must acknowledge that we have received good from the convention, and the amount of good received is dependent largely on each one present.

Men who travel along the beaten track—who get into a rut, as it is called—never improve or advance; they crystalize, so to speak, and each year of this crystalization hardens the crust and makes the man less open to the suggestions that would aid him, and, it may be, start him on the road to success. It is not given to any one man to know it all; but in these comings together, these conventions, we get in a short time what some others may have spent years to obtain.

There is no loss of time to the man who will properly appreciate the value of such a meeting. A simple formula will serve to make all of us get the greatest good out of the big coming convention; and we would state it in this wise: Mix a little application with a vast deal of comprehensive listening, and to it add willingness to learn. When this is at the right condition flavor with a determination to profit by what we hear and see, and then we will find the convention a most delectable dish, and one that will not only increase our appetite for conventions, but also our capabilities for appreciating the value and profiting thereby.

A Timely Suggestion.

THE time for renovating and freshening has arrived, and the studio, if it has not already been through this process of renewal, must at once be subjected to it. Make it a rule that, at least once a year, all the old trappings and decorations be taken down and thoroughly cleaned, if nothing more; but, better still, on removing the hangings that have done service during the long winter months, substitute for them during the summer an outfit of an entirely different nature. Let the keynote of the summer decorations be lightness and airiness; freshening things up with a coat of paint where needed, and let your patrons see the effect of a change at least as often as spring and fall This need not be an expensive operation, for, in these days of dainty effects and moderate prices in goods adapted to draping, a few dollars will cover all needed outlay in this direction.

People tire of coming into the same room time after time, no matter how attractive it may have been at the beginning, and there is somehow in the air at this time a feeling of restlessness which demands changed conditions, indoors as well as out. It is wonderful to note what a subtle influence these balmy spring and summer days have upon the human organism, and the man who caters to this ultra sensitiveness shows himself to be possessed of qualifications that, carried to their logical conclusion, mean business success.

Now, taking for granted that the spring cleaning has been done, that the gallery is fresh and dainty, all in readiness for the summer work, we believe that a very excellent feature to introduce at this juncture is an exhibition, a reception, or what not. A few suggestions for the conduct of such an affair are herewith submitted. Let it be known at once among your friends and patrons that such an exhibition is in preparation and that it will be held at or about a certain specified time, the date being placed far enough ahead to enable you to procure all the material necessary without hurry and disappointment. Your arrangements perfected, and the time for the exhibition being close at hand, remove from the walls all your old specimens and in their place hang whatever good work you have been able to get from some of the recognized leaders in photography; men whose work stands for good photography in every sense.

You will probably have little difficulty in obtaining from these men the loan of a collection of prints for this purpose, provided you are willing to stand the small expense necessary to cover the cost of transportation to and from your establishment. The willingness of our successful photographers to assist their ambitious co-laborerers in this way is noteworthy, or if you are in the Women's Federation there are the advantages of the circle exhibit.

See to it that your collection is artistically grouped and properly hung, keeping the work of each exhibitor by itself and keeping your own work entirely subordinated to that of the others. It will frequently be possible to obtain, in addition to photographs, the loan of a few choice etchings, engravings or paintings from some of the more artistic of your patrons, in which case a room or part of a room, at least, should be reserved for them, remembering, however, that oil paintings cannot to advantage be hung together with either black and whites or photographs.

See to it that each picture is plainly marked with its title, and that due credit is given to the owner for its loan.

Have your announcement prepared and mailed to every person in your neighborhood whom you desire to influence in your direction, long enough before the exhibition, so that it may be talked about, and take pains to cultivate the representatives of your local paper, sending invitations to them and arranging through them for whatever newspaper publicity you may be able to obtain before and after the event. Let this publicity be through the reading columns, however, and not through the advertising columns of the paper.

Hold this reception during the afternoon and evening of one or more days, and if the

local conditions are such as to render it wise, afternoon tea may be served under the skylight, which, for the occasion, may be turned into an arbor dceorated with shrubs, vines and flowers. Let it be clearly understood throughout the whole affair, that it is not your design or intention to exploit your own work on this occasion, but that you are providing for the people of your vicinity an opportunity to study the work of masters in photography; that you are laying before them a collection of prints which they cannot see elsewhere. Make this squarely your reason, and get them to your studio for this purpose only. Avoid "talking shop," above all things, and during the time allotted to the exhibition see to it that no work of any kind is carried on in the rooms devoted to it, or visible from it.

Make the occasion, however, an opportunity for improving your acquaintance with your guests Make mental note of the costumes and peculiarities of your more prominent people, and, later on, take occasion to request the privilege of a sitting, complimentary, of course, from Mrs. A., or Miss B., the representative, perhaps, of some social clique in the neighborhood, or prominent in church or social affairs at large. Give them to understand that you were impressed with the beauty or style of a particular costume worn at your reception, for instance, and that you would like to photograph them as they were on that occasion. A little attention to matters of this kind often wins customers, who would otherwise be beyond your reach.

Informality should, however, be the keynote of this affair when it comes off, and any side attractions that can be added, to relieve it from form and ceremony, are so much to the good, music on the lawn being one of the best on such an occasion. The time for starting such a thing is *now*, and the occasion is, we believe, almost anywhere in this land where it has not already been done.

Its cost is so moderate and its possibilities so large that it should commend itself for trial.

PHOTOGRAPHY IN GREAT BRITAIN

A Review of the Month from our own Correspondent

LONDON, *April* 1st.

DAVID OCTAVIUS HILL, the pioneer of the artistic photograph, has been honored at his birthplace at a time most singularly opportune. Last week the Lord Provost of the city of Perth accepted from a private donor a bust of the famous artist and photographer for deposit in the local art gallery. Hill was for over forty years secretary of the Royal Scottish Academy and produced several fine paintings. Indeed, the exquisite clarity of his portraits and groups is attributed directly to his study and development of photography as an art, for it was often his practice when commissioned to paint a large group to secure portraits of each individual and to elaborate the print upon the canvas. Furthermore his photographs, a collection of which were exhibited some time ago in Scotland, are considered by leading exponents of the art quite worthy of comparison with present day achievements, despite the fact that nearly the whole of Hill's work was executed in the days of the Daguerrotype and the wet-plate. Within a few weeks hundreds of photographers from every quarter of the British Isles will pay tribute to the memorial at the National Photographic Convention which meets this year at Perth.

Latent Images

I venture to assert that the most important paper before the Royal Photographic Society this year was that given a fortnight ago by Dr. H. S. Allen upon the cause of that perplexing photographic phenomena, the latent image. In a nutshell the lecturer's argument revolves around the query "is the change both chemical and physical?" The effect of ordinary actinic light was produced upon the plate by Röntgen and Becquerel radiations, while other experiments clearly proved that the electric vector in the light-wave caused a change in the photographic plate. The physical change, if such did take place, was through an emission of electrons from the molecule sensitive to light and the gradual destruction of the latent image was the gradual return of the electrons to the atom. Reverting to the physical side Dr. Allen contended that it opened up a wide field of controversy and research in connection with photo-electric activity of the substances employed, the penetrating power of electrons and the di-electric properties of the emulsion.

Fraudulent Canvassers.

Nothing has ever stigmatized the profession in England so much as the wiles of the fraudulent canvasser or traveller. Although two or three years old the imposition appears periodically in different parts of the country in a variety of disguises, and generally the procedure is for a bogus representative of some well-known photographer to call upon householders soliciting orders If he is successful in his persuasions he may, in the course of his day's wanderings, collect a few guineas by

way of deposit money, then he disappears from the district, leaving the local photographer whom he has fraudulently impersonated to face the music and explain to the best of his ability the real identity of the charlatan. A different form of the same trick was unveiled at the Middlesex Sessions the other day when a London householder related how he was duped into parting with $20 to a particularly ingenious member of this gentry. The victim was aparently impressed with a promise of having his finished portrait exhibited at one of the photographic exhibitions, but the only satisfaction ultimately obtained, beyond the twelve months' imprisonment of the photographer, was a frame and print worth about half-a-dollar.

Tinting Slides With Dyes.

"All lantern slides lose one-third of their density in fixing," was the dictum of Mr. F. Miles, one of the most brilliant lantern slide colorists in the Kingdom, when addressing a gathering of amateurs in the metropolis a short time ago. And Mr. Miles is fully qualified to speak, for his hand-colored transparencies are the envy of many lanternists. He uses for his slides analine dyes in something after the style I mentioned in December, but with a slightly different method of application. As Mr. Miles is by profession an artist the excellence, in view of more material proof being absent, can be well imagined. A common error made by amateurs is that of applying the dyes too strongly; they should be reduced to the consistency of a wash and applied in a series of separate coatings. Immediately following the fixing bath, says Mr. Miles, is the proper time for coloring and without the use of a hardening agent. Apply the color weakly at first and have patience. Some shades require twenty or more coatings before they attain the required depth, while the colors blue and crimson lake would be found most difficult to work, owing to the unusual absorbency of the film and their liability to "run." In Mr. Miles' woodland studies the different and delicate greens were obtained by alternate washes of blue and yellow which, he said, gave a finer result than by being "dabbed" on the slide in small uneven patches.

Professional Photograpers' Congress.

This year's Congress of the Professional Photographers' Association promises to be a novel one. In accordance with a desire expressed by several members it is to be thrown open to all professionals instead of to members only, as hitherto. At the exhibition in conjunction with the Congress gold and silver medals will be offered for the best work submitted. The exhibition opens Monday, May 11th, in the Royal Horticultural Hall, London.

A Successful Ruse.

An excellent ruse I saw adopted by a street photographer in Manchester for avoiding the persistent attentions of a crowd of children. He was engaged taking a street vista in one of the poorer quarters of the city, and try how he could he could not induce his juvenile audience to stand behind the camera. As a last resource he focussed and loaded his camera and then threw the focusing cloth over the lens and pretended to focus in the opposite direction. Promptly the youngsters moved behind the camera, and deftly stepping to one side the photographer exposed his plate with the camera in its original position.

Flashlight Dangers.

An alarming experience befell a press photographer attached to the staff of an illustrated newspaper a short while ago. He was engaged securing a flashlight portrait of a group of people in a small room in a hotel when immediately after the flash of the magnesium it was discovered that the windows of the rom had been blown out, several ornaments in the interior smashed, along with other minor damages to fragile articles. A careful survey of the circumstances enveloping the apparent mystery revealed that the operator had used too large a quantity of flash powder, and its ignition in conjunction with the other heated gases always present to some degree in a warm room, was quite sufficient to cause a slight explosion. No personal injury was reported after the accident, but it will be a precaution worth the while in future for flashlight photographers to not only make sure not to overcharge their apparatus with powder, but to open the windows for a few moments before commencing operations. This would permit of the escape of any accumulation of inflammable gas and is particularly worthy of observation when flashlights have to be made in gas-lit rooms.

A Camera for the Aeronaut.

Aviation and photography would seem to have little in common, yet the Aero Show in London establishes a working relationship between a specially designed camera and a Bristol monoplane. The instrument is secured in a box on the shaft of the aeroplane's propeller and by means of a smaller shaft revolved from the main propeller at one end and connected with the interior mechanism of the camera at the other, it is made to automatically expose a length of film at regulated intervals. Thus the camera could be set previous to the airman starting his flight to take a photograph every minute and without requiring any attention from the pilot Furthermore, the camera is connected when in service with a compass and barograph in such a manner that an automatic record of the height and locality of the camera is registered with every negative.

Professional and Amateur.

The old question of relationship or status of the professional and amateur photographer is really too delicate and controversial to discuss

in a magazine that caters for both, but one thing is certain in this country and it is the steady but sure diminuation of the spirit of contempt and superiority in which professionals at one time regarded amateurs. In the words of Mr. L. Norman, one of the best known professionals in Ipswich, "There are no secrets in photography at the present and professionals and amateurs can meet on common ground with mutual advantage." Unfortunately, this view is not shared by every studio-proprietor in Great Britain and the animosity between the two at times often reaches a painful pitch. This is especially the case in very small towns or villages where there is generally only one professional photographer, for it is more than can be expected that the inevitable amateur will not, if he has the opportunity, refrain from utilizing his art for profit. To any reasonable mind such an attitude will appear stupid. An amateur who does take photographs for profit generally confines himself to work that would never reach the professional, often amongst his own friends and relatives. Yet at the same time he needs materials, and if there is no store in his immediate neighborhood, he would prove a good customer to the professional. That is, providing the latter encouraged rather than despised his attentions. A photographer of my acquaintance who ran a studio a few miles from Leeds at the time of the advent of the Kodak, was regarded almost as a demi-god by local amateurs through the genial manner in which he catered for their requirements and assisted them through their little difficulties. When the hand-camera became less of a craze and more of a necessity, he discarded his studio and commenced what is now one of the most successful retail houses in the North of England; and I very much doubt whether this would ever have materialized but for the consistent start his amateur friends accorded him.

The Autumn Exhibitions.

In view of the increased exhibits at the London exhibitions from the New World a final note as to the arrangements may not be inappropriate. The 59th show of the Royal Photographic Society opens August 24th, but all entries must reach the secretary at 35 Russell Square, London, before August 1st. The selection committee is as follows: Alvin L. Coburn, J. B. B. Wellington, J. C. Mummery, F. Lewis, H. Holcroft and J. H. Gear, for pictorial work; J. H. Gear and H. E. Gorke for color work, and Dr. C. E. Kenneth Mees, Richard Kearton, W. D. Butcher, C. Jones, F. Martin Duncan, A. J. Newton, and J. W. Ogilvy for the scientific work. The London Salon of Photography holds its annual exhibition for a fortnight, commencing September 5th, and the final date for entries is August 19th. Mr. B. Park, 5a Pall Mall East, London, S. W., is the secretary, but exhibits must be sent direct to the packing agent, Mr. C. H. West, 117 Finchley Road, London, N. W.

The Snowden Ward Fund.

It speaks well for the conditions of photographic workers that no demand has so far been made upon the sum of money subscribed and set aside as a memorial fund to the late Snowden Ward. The return of the London Hospital (to which the fund was devoted to provide assistance for photographic patients) shows that the interest upon the capital available to meet any urgent case is slightly in excess of £14.

Novelties.

Spring is attended with a host of novelties for photography, principally in the nature of labor-saving devices for the amateur. A few of the most notable appliances from the London houses embraces over two dozen new brands of plates and papers. Perhaps "Satista," a new developing paper by the Platinotype Co., is the most outstanding, in as much that it possesses the permanency and lustre of Platinotype at half the expense and trouble. The Criterion Co. anounce a new gelatine developing paper for use in daylight, while Messrs. Houghtons have decided to market their "Ensign" film in flat-pack form.

The Polychromide Co. of New York have now become firmly established in their English home at 38 Dover Street, London, W., and no doubt a few weeks will see their color-process installation in many studios.

Amongst the new inventions of the month is an automatic copying and enlarging camera, an improvement upon certain British patents of 1904 and 1909 by Mr. Joseph Becker of Washington, D. C., United States, and an automatic printing machine for bromide high-speed work by Mr. A. C. Banfield of London. A German inventor claims to have perfected a method of obtaining three-color prints from autochromes by making three negatives and printing them upon baryta paper treated with special solutions and then brought into correct register

Mr. F. W. Kent of Clapham, London, is applying for a patent for a process of transferring photographic prints by means of paper impregnated with wax. The principle involved is the sensitising of this wax base, its exposure through camera or contact, its final development, etc., and its transfer to a permanent base by the use of a strong adhesive.

Also on the patent list is a novelty in camera fronts by Houghtons, apparatus for developing plates in daylight by a French inventor, a new exposure meter by G. F. Wynne, and an Italian conception of non-halation backings for plates and films.

J. B. SUTCLIFFE.

THE WOMEN'S FEDERATION OF THE PHOTOGRAPHERS ASSOCIATION OF AMERICA

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WILLIE DANIELS, A PRODUCT OF THE NEW SOUTH

BY BAYARD WOOTTEN

WHAT land is there more fascinating than the South Land, with its wealth of tradition and its wonderful folk lore; what people has gone through a greater variety of experiences, than its people; and where can we find greater achievement or broader adaptability than among them? In ante-bellum days, when its unique civilization flourished in its feudal splendor, there were men and women big enough and broad enough to rise to the heavy responsibility of administering its vast estates, with their many and varied duties, that we in this day and generation can hardly conceive of. Then the lady of the mansion with her dozen or more servants had to have an executive ability that makes us rather weary to contemplate. But she had it and her success was of such an order that now, a generation after it has all passed away, tradition gives us such vivid accounts of the marvels of her housekeeping, the joys of her table, where the recipes of her most famous dishes are still handed down from mother to daughter; that in imagination we can fancy the wonderful fried chicken melting in our mouths. They do say that you could lay that fried chicken on a linen handkerchief and it would leave no grease mark. This is only one of the culinary feats that is so unusual that we all feel as if we are from Missouri and want to be shown.

The gorgeous civilization of a generation ago has lived its day, accomplished its purpose, and passed; but its marks are still on the South Land. The cooks that the mistresses of these stately mansions trained, have daughters, and with them live these secrets that place cooking among the fine arts. These servants have imbued the spirit of the land and are adaptable They have learned to live under new conditions, to meet new problems, to solve them; in short, to be successful.

When the P. A. of A. goes to Atlanta next month, they will not only have a feast of knowledge where everybody is not only invited to

take home with him all that he can carry, but they will breathe the spirit of the New South, be enthused with its energy in this wonderful city of Atlanta, but they will get acquainted with these goodly eats, as they will be served a lunch each day at the Auditorium by Willie Daniels, the most remarkable negro woman in the South. She is a product of the New South. Her mother was a servant in one of the most aristocratic families in the aristocratic old state of Georgia. To her was given the most careful training that was bestowed on servants in those days, being taught to make the choicest dishes for the most fastidious people. All of these things have been carefully taught to Willie. And she has shown herself not only an apt pupil, but has developed an executive ability that has put her in a class by herself. When Atlanta entertains her guests of national importance, like Mr. Taft and Mr. Carnegie, she is always employed as caterer. And so when the Women's Federation took charge of serving the lunch to the Convention, they, too, turned to Willie, and great was their satisfaction when they found her. She is not a darkey of the old type, with a spotless apron, a red bandana head dress and a courtesy every time she said "Yes, Missis;" nor did they find a "fresh" darkey that greeted them on a social footing. What they found was a quiet, well-dressed woman, thoroughly business like, that used as good English as other people, and knew what was expected of her. There is nothing so objectionable as a "fresh" darkey, and when the Committee of the Federation found this quiet, well poised, courteous woman, who had proved herself so capable, they were unspeakably relieved. It is quite an undertaking to serve lunch to the National Association at best, and when the Federation undertook the job they approached it with a sense of heavy responsibility. No one but the committee can appreciate the joy that Willie and her attainments meant. She will have complete charge of the lunches at the Convention. They will be served at the Auditorium in a hall quite apart from the booths and the demonstrations. There will be inviting tables with snowy linen, and quite well appointed servants to anticipate every want. Here you can go and have a refreshing ice, or cool drink at any time of the day, and for about three hours you can get a regular lunch that will not cost more than 50c. Just think of the delights of not having to chase all over the city for something to eat; then the joy of having a quiet corner to take that customer to and finish thrashing out details, while you know that life is worth living as you eat Willie's creations. For creations are what they are, and after the game is all played and we all go home again I think we will all feel that eating Willie's good things, and seeing the ease with which she handles this really big proposition is one of the delightful memories of an altogether successful week.

KATE CAMERON SIMMONS, AT THE NATIONAL.

An Outline of Her Part of the Program to be Given by the Women's Federation at the National Convention at Atlanta, Ga., June 15-20, 1914.

KATE CAMERON SIMMONS comes to her work for the National Convention ably fitted by training, and by successful experience, to present that part of the program which she has in charge

MISS SIMMONS

BY PEARL GRACE LOEHR

Miss Simmons is a graduate of the General Art Course and also of the Normal Art Course of the Pratt Institute, and in her we find a woman who not only has received the foundation study and work in art, but one who has had the training to clothe the theory in practical form, and to teach the underlying principles.

Her individual work, as a factor in the art education of New York City, received such recognition that she was selected by the Board of Education of New York City to visit England and to make a study of art in the schools of England.

Miss Simmons was selected by the Portland Art Association of Portland, Oregon, to organize the Art School of Portland, and she has had this school in charge for several years, and in its organization, administration, and course of work it bears the impress of her individuality and her work.

The following is an outline of the work to be presented:

I. Photography as a fine art.
Line and dark-and-light arrangement.

II. Principles of composition applied to dark and light in photography. Unity through subordination, balance, rhythm.

III. Principles of composition applied to line in photography.

IV. The photographer as a creative artist. Self expression.

The lectures, so far as possible, will take the form of lessons. Definite principles will be studied and illustrative material will be analyzed from the point of view of these principles. The illustrations will be photographs of masterpieces of paintings, photographs made by members of the profession, and drawings made before the class by Miss Simmons. Criticisms or suggestions will be given on photographs when requested, and members are invited to submit photographs for this purpose.

PEARL GRACE LOEHR, *President.*

REPORTS OF SOCIETIES

THE BIG SCRANTON CONVENTION.

WITH a brief address by State President J. B. Schriever, the eighteenth annual convention of the Professional Photographers' Society of Pennsylvania began its business session in Town Hall on Tuesday, March 17th. Previous to the business sesion, the building was thrown open to visitors for an hour.

At 10.30, the mayor's secretary, R. B. Silverstein, appeared and read the address of welcome, as the mayor was unavoidably called out of town. In a few well chosen words the chief executive welcomed the visitors to our city and extended to them the best wishes of our people.

One of the interesting features of the afternoon meeting was the demonstration of commercial photography by George H. Hance, of Northamton, Mass. This work showed the commercial value and the manner in which illustrating was used in advertising and how effective it had proven.

William H. Rau, of Philadelphia, continued in the same line and took for his subject, "The Business Side of Commercial Photography," treating his discourse in a most interesting manner and advanced many new and unique ideas of the method that could be used by the photographers in greatly increasing their business.

H. O. Bodine, of Rochester, N. Y., and George H. Hance both gave talks of a technical nature, the former speaking on "Photographic Lenses" and the latter giving an illustrated talk on the use of ray filters for photographing colored objects. The session closed with a talk on the relations between the manufacturer and the dealer and was more of a discussion than anything else, many of the delegates participating.

In the evening there was illustrated talks, one on the "Balance of Light" and the other on the beauties of Atlanta, Ga.

J. B. SCHRIEVER, PRESIDENT

In behalf of the society, Ryland W. Phillips, of Philadelphia, responded to the mayor's address and thanked him, and through him the business men of the city, for the cordial reception that had been given them, and many little attentions that had been shown that would cause them to long remember this city. At the close of Mr. Phillips' address, a recess was taken for an hour and luncheon was served in the convention hall.

Hotel Casey was the scene of animation in the evening when the delegates to the convention held several informal meetings preliminary to the convention.

One of the matters discussed at the session was the proposition to start a per capita tax by sections for the assistance of the state association. There was an animated discussion and the matter was finally disposed of by having a committee appointed to investigate the subject and report to the convention today.

A number of the citizens of Scranton were given an opportunity to view some of the exhibits as the doors of Town Hall were thrown open while the displays were being put in place and those who availed themselves of the privilege were more than delighted with the exhibit.

The public reception was a most phenomenal success, there being 8,472 people admitted to the exhibition. All spoke in the highest terms of the display, and only regretted that more time was not given them to view the exhibits. The throng was so great that upon several occasions during the evening the doors were closed to permit those who viewed the pictures to pass out before admitting others, and on one occasion there was a line-up of anxious people awaiting admission that reached for over a block. Hundreds were unable to view the exhibits.

The exhibition of photographers was confined to three long narrow tiers in the center of the hall, each tier one inch in thickness and running from end to end. These are in blackboard style, long wooden frames covered with brown burlap. Upon these frames more than one thousand photographs of all descriptions were hung.

To the left of the entrance adjacent to the Haworth exhibit, the booth of the Ansco Company, of Binghamton, was first to greet the eye.

At the farther end of the hall, extending from wall to wall, the resplendent exhibit of the Eastman Company was arranged with the taste characteristic of that famous house.

Confined to the left center tier were the displays of the Bridges Manufacturing Company, Sprague & Hathaway, of West Somerville, Mass.; Presto Manufacturing Company, of New York; A. M. Collins, of Philadelphia; and the Hammer Dry Plate Company, of St. Louis. The center tier was devoted exclusively to the exhibition of photographs belonging to the members and delegates.

Report of the nomination of officers for the ensuing year were: President, E. E. Seavy, New Castle; Vice-President, H. J. Springer, Scottdale; Secretary, E. W. Brown, Beaver; Treasurer, W. I. Goldman, Reading, Pa.

Pittsburgh was unanimously selected for the next convention.

This was one of the most successful state conventions ever held, and the real enthusiasm and interest was a tremendous factor and incentive.

Kansas Photographers Will Meet at Newton, Kans.

The annual convention of the Photographers' Association of Kansas will be held at Newton, Kans., on September 22, 23 and 24, was decided March 30 at a meeting of the executive board. Mrs. Helen I. Francis, president of the association, presided.

A few tentative features of the convention were outlined. All of the large photographic manufacturing houses will have displays and will give special demonstrations on posing, operating and dark-room work.

One of the most attractive features will be one which is expected to draw out methods used in the studios by different photographers. Probably a prize in gold will be offered for the best original labor-saving device exhibited by a Kansas photographer.

The officers of the association who attended the meeting of the executive board were: W. R. Murphy of Newton, past president; T. Livingston of Wichita, secretary; Hugh Scott of Independence, first vice-president, and Arthur Gibson of Iola, treasurer. A vacancy was filled by the election of Miss Alice Gardner of Valley Falls as second vice-president.

The Cleveland Photographic Society—Postponement of Exhibition.

Owing to a change of administration and the desire to get together a large exhibit, the Annual Exhibition at Case Library under the auspices of this Society has been changed from the dates of April 13th to 25th, and will be held from May 23rd to 30th, inclusive. All photographic prints must be delivered charges prepaid, to the Cleveland Photographic Society, care of Case Library, 812 Huron Road, Cleveland, Ohio, on or before the 15th of May, 1914. Otherwise the conditions of entry remain the same.

The Cleveland Photographic Society,
Room 405, Cuyahoga Bldg., Cleveland, Ohio.

The Royal Photographic Society of Great Britain are holding their fifty-ninth annual exhibition in August and September of this year. There are three sections of exhibits: Section 1, pictorial photographs; Section 2, color transparencies; and Section 3, scientific and technical exhibits, color prints, and natural history photographs.

Exhibits, together with a duly filled up entry form, must be delivered in London on or before Friday, July 31. Photographs may be unframed but must be mounted. Information as to the exhibition and entry forms may be obtained by application to the secretary, 35 Russell Square, London, W. C.; but in order to facilitate the entry of American exhibits intended for Section 3—those dealing with the scientific and technical sides of photography—I have arranged to collect and forward American work intended for the Scientific Section.

Photographs intended for this section should reach me not later than Friday, July 10, and intending exhibitors should communicate with me as soon as possible, when I can send them the necessary entry form to fill up.

C. E. KENNETH MEES.

Address: Research Laboratory, Kodak Park, Rochester, N. Y.

NEW BOOKS

DIE MISSERFOLGE IN DER PHOTOGRAPHIE, I TEIL —NEGATIVVERFAHREN BY H. MUELLER. PUBLISHED BY WILHELM KNAPP, HALLE AM SAALE. PRICE 2 MARKS.

THIS is the fourth edition of the first part of a work which has obviously found favor in the land of its birth, and it deals with the failures likely to be met with in the making of negatives and the remedies for the same. It is obviously written for the beginner and contains many useful notes, though here and there one finds suggested remedies that have grown hoary with age and which are of doubtful value. Occasionally, too, a decided slip, as for instance, when the author states that the greatest density is obtainable by development with ferrous oxalate after bleaching with mercuric chloride. Scattered throughout the book there are formulas for developers, intensifiers, reducers, etc., and some eight half-tone cuts show some of the most common and glaring failures.

DIE PHOTOGRAPHISCHE RETUSCHE, BY G. MERCATOR. PUBLISHED BY WILHELM KNAPP, HALLE AM SAALE. PRICE 2.50 MARKS.

THERE is an ever-widening class of photographers and public that is steadily decrying the use of retouching, particularly that excessive style, which at once stamps the photographer and his sitters as of the polished ivory or "bonehead" class. Obvious defects it is naturally permitted to remedy, but to stipple, crosshatch or otherwise obliterate every characteristic line or mark that individualize a sitter is a mistake and this is the attitude taken by the author in this little manual, which has now reached its third edition

He treats but briefly of the advantages of the color-sensitive plate, but enters at greater length into chemical retouching by local intensification and reduction. Retouching in its limited sense of pencil and stump work is then thoroughly dealt with and incidentally I note what is to me a new varnish for working up large surfaces that may be useful, as it can be applied to a cold plate and takes the pencil well:

Sandarac	12 g	84 grains
Ether	40 ccs	280 minims
Gasoline	1000 "	16 fld. ozs.

Dissolve the sandarac in the ether and add the gasoline.

The latter half of the book treats in a very complete manner of coloring, retouching and painting prints and positives.—*E. J. W.*

MR. F. HOPKINSON SMITH, in his latest book, "In Thackeray's London," (Doubleday, Page & Co., New York), has done much more than present the London background of the novels; he has given us the companionship of the novelist in his happiest moments and in the places that were dear to him, and he has done this in the only way in which it could be effectively done; by the aid of the pencil as well as of the pen. London has found many chroniclers, but none who has caught and reproduced its soft, rich murkiness as the etchers have seen and conveyed it. Mr. Smith has interpreted with his delightful drawings the real charm of his subjects, and whether we regard them as a portfolio of beautiful drawings, or as a series of vivid pen sketches of modern London, his volume is one not only of present delight but of lasting value. Its informality, its extreme modernness of method, bring the older London into striking relief; while its affection, which is wholly unashamed, brings us very near the secret of the author of the novels which neither changes of custom nor of heart will dislodge from their place among the enduring works of English genius. The text, with the drawings, gives this book permanent value for the lovers of Thackeray.

BAUSCH & LOMB OPTICAL CO. announce the publication of a new edition of their booklet, "WHAT LENS SHALL I BUY," giving the revised prices for 1914. Should you be interested in a copy of same, write them at 633 St. Paul St., Rochester, N. Y.

NOTES AND NEWS

1914 KODAK ADVERTISING CONTEST—

$3.000 IN CASH PRIZES.

GRAND PRIZE CLASS: FIRST, $500; SECOND, $400; Total, $900.

Open only to Professional Photographers who have won prizes in Professional Class in previous Kodak Advertising Contests.

Negatives, 5x7 or larger.

CLASS A.

Professional Photographers Only.*

Negatives, 5x7 or larger.

First Prize	$500.00
Second Prize	300.00
Third Prize	200.00
Fourth Prize	150.00
Fifth Prize	100.00
Sixth Prize	50.00
Seventh Prize	50.00
Eighth Prize	50.00
	$1,400.00

*Winers in 1907 and in Class A, 1908, 1909, 1910, 1911 and 1913 are not eligible.

CLASS B.

Amateurs Only.

Negatives, 3¼x5½ or 4x5 or larger.

First Prize	$300.00
Second Prize	200.00
Third Prize	125.00
Fourth Prize	50.00
Fifth Prize	25.00
	$700.00

SUGGESTIONS.

First of all, it should be remembered that these prizes are not offered for the sake of obtaining sample prints or negatives made with our goods. *Merely pretty pictures, merely artistic pictures will not be considered.* The pictures must in some way connect up with the Kodak idea—must show the pleasure that is to be derived from picture taking, or the simplicity of the Kodak system, or suggest the excellence of Kodak goods. Must, in short, help to sell Kodak goods, by *illustration* of some one of the many points in their favor.

The jury will be instructed to award the prizes to those contestants whose pictures, all things considered, are best adapted to use in Kodak (or Brownie Camera) advertising.

As reproductions of the pictures will often be in small sizes, too much detail should not be introduced.

Pictures of reproductions should be snappy —vigorous, for they lose much of the halftone process.

Where apparatus is introduced, it must be up-to-date. If you haven't the goods, you can borrow.

It is highly probable that we shall want to secure some negatives aside from the prize winners. In such cases special arrangements will be made.

Write to the EASTMAN KODAK COMPANY, Rochester, N. Y., for circular with full particulars.

Wanamaker's Ninth Annual Contest.

Miss Beatrice B. Bell, of California, won the first prize of $100 in the ninth annual exhibition of photographs at the Wanamaker Philadelphia store. One thousand four hundred and twelve photographs were shown.

The jury which made the awards must have been confronted with a tremendous problem. So many pictures not included in the winning list showed much that was striking and entitled to recognition that fine lines must have been drawn in order to make the decisions announced.

The winners of the three first prizes are:

First prize—$100 (awarded to two pictures), "Fishing Fleet," "Outdoor Portrait," Beatrice B. Bell, California.

Second prize—$50, "Under Construction," Richard Pertuch, Philadelphia.

Third prize—$25, "Summer," Alice Boughton, New York City.

Two New Lenses.

Suter of Basle has introduced a new portrait anastigmat, the Stella, which judging from the reports is a soft focus lens working at F/5. No details of construction have yet been published.

The C. P. Goerz Optical Co. have also placed on the market a new anastigmat, the Dogmar, in three series working at F/4.5, 5.5, and 6.3. It is composed of two uncemented combinations, each of which can be used separately and giving three foci in the approximate ratio of 1:1½:2.

Concerning Autochrom Plates.

Autochrom Plates have been on the market now for only six years, yet they have attained great popularity amongst amateurs and professionals. There seems to be, however, some slight prejudice against them.

Some people are dismayed by fear of imaginary difficulties and failures; they do not dare to make a test and thereby judge for themselves of the surprising simplicity of the process.

Others have never enjoyed the opportunity of viewing good Autochrom pictures. They have passed judgment upon poor pictures obtained by people with slight experience in photography. They fail entirely to realize and appreciate the absolute faithfulness of the process in its rendering of the most delicate tints of Nature.

But Autochroms have found an increasing demand for use in portraiture by daylight or by flashlight. In fact, the displays of portraits on Autochrom plates shown at the annual conventions of professional photographers are now one of the main features of these conventions.

The fifteenth edition of "Color Photography with Autochrom Plates" has just been issued. It gives directions on "Manipulation," "Development," "Flashlight" and other practical chapters. This valuable little book will be sent you on application, if you mention WILSON'S and write Lumiere Jongla Co., 75 Fifth Ave., New York City.

PROPER ARTIFICIAL LIGHTING.

A PRACTICAL artificial lighting system is one of the best investments a photographer can make.

Flashlight is now conceded to be the best artificial light, as your exposure is instantaneous, and with modern flash powders but very small charges are necessary for portrait work.

For firing the powder, you want a machine which will permit of adjustment of the height and angle of light, and which has a large enough illuminating surface to insure soft lightings. Ask James H. Smith & Sons Co., 3545 Cottage Grove Avenue, Chicago, to tell you about their Victor Studio Flashlight Cabinet.

THE JUDICIOUS SELECTION OF PHOTOGRAPHIC LENSES.

IN selecting an adequate photographic outfit for a definite purpose, it is necessary in the first place to know just how far our expectations can be realized As a guide to their characteristics and possibilities, it is well to keep in mind the limitations that have been placed by the laws of optics.

The New 1914 Voigtlander Catalogue, with revised prices, explains the general capabilities of lenses, as far as is necessary for individual selection, and at the same time it points out the limits within which the ambitions of the photographer must be confined.

The assortment of lenses contained in the Voigtlander Series meets many requirements of both amateur and profession photographer. A copy will be supplied by writing the company at 250 E. Ontario Street, Chicago, Ill.

NEW KODAK CATALOGUE 1914.

WE have just received from the Eastman Kodak Company the 1914 Catalogue of Kodak and Premo cameras. The very first Kodak, way back in 1888, was accompanied by a so-called manual that did more than merely explain the mechanical features of the camera.

It told how the picture should be taken; how (and how not) to photograph a tall building; how to photograph a small child—told about the length of exposures in different kinds of light, both indoors and out. It was really a primary hand-book of photography.

Simpler cameras, simpler processes have followed each other with almost startling rapidity. But the Kodak Company has not been satisfied with merely making mechanical and chemical improvements. It has assumed the responsibility of educating people in picture making. Every piece of Kodak apparatus, every product of the Eastman Company has been accompanied by the most concise instructions; instructions that were also constructive, because they not only told the beginner what to do but *why he was to do it.*

Even in the Kodak advertising matter, as much space is given up to telling people how to make pictures as in telling them why they should buy Kodak goods. Booklets in large editions, giving instructions in practically every phase of amateur photography have been and still are distributed without charge. Photography, therefore, has not merely been made simpler, it has been explained to all who are interested.

Copies of these catalogues will be supplied upon application to the Eastman Kodak Co., or through your dealer.

FIFTH SEASON, SEGUINLAND SCHOOL OF PHOTOGRAPHY. CLARENCE H. WHITE

Lecturer on Art Photography, at Teachers' College, Columbia University, and the Brooklyn Institute of Arts and Sciences
Seguinland, Maine, from July 6 to August 22.

MR. WHITE'S students will receive individual instruction in the use of the Camera; in developing, printing, enlarging, mounting, and lantern slide making; and will have the benefit of his person supervision in photographing in the field and studio.

Seguinland offers so great a variety of subjects for the worker in photography that every type of camera outfit can be advantageously used.

Mr. F. Holland Day and other well-known photographers will co-operate in criticism of the work of the students.

Exhibitions by distinguished photographers will be held during the session. An exhibition of work by members of the class will be given at the close. Talks on pictures and composition will be given in the evenings, illustrated with the stereopticon.

Special attention will be given to instruction in photographic processes of value to the pictorial worker in photography.

Tuition for seven weeks, $75.00; for four weeks, $50.00; for two weeks, $30.00.

Seguinland, Maine; Post Office, Five Islands, Maine, posesses an excellent modern hotel, the management of which offers a special rate to Mr White's students.

For further information, write CLARENCE H. WHITE, 5 West 31st Street, New York.

ENTHUSIASM IN ANSCO COMPANY'S $5,000 PRIZE CONTEST IS HIGH.

IT is hardly possible to grasp the immensity of the nation-wide enthusiasm created by Ansco Company's $5,000 America's Loveliest Women Contest. Hundreds of letters to Ansco Company from photograpers everywhere prove what they have believed from the first that the competition will be the greatest ever known in the history of photography.

The publicity given the contest through national advertising in leading magazines has spread the news from coast to coast. Ansco dealers are prepared to furnish all prospective entrants with the list of rules and blank to fill out when submitting portraits. The conditions are so wide open and simple, the prizes so generous, and the personnel of the jury of award so popular that the interest created is tremendous.

Such interest means that thousands of portraits will be entered from every nook and corner of the United States. Enthusiasm is quite as genuine in the little villages as in the great cities. The end of the camera trail alone marks the boundary.

Have you secured *your* entry blank? Have you sought out that Loveliest Woman? Have you planned how soon you will make her portrait the best of your career?

Could any photographer enjoy greater distinction than to win one of the fifty prizes, amounting to $5,000 in all—to have his work exhibited to the world at the Panama-Pacific Exposition?

Your opportunity is unusual. Leave nothing undone to win a big prize. Put your mind and talent to work and make as many entries as you can. The contest will run from May first to December first, but lose no time.

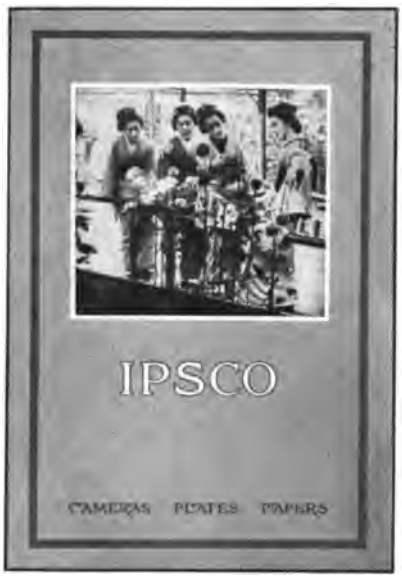
Watch for the Ansco advertisements in the big magazines. Tell your friends all about this magnificent idea. Get their enthusiasm keyed up like yours. That's the way to get real pleasure and real profit out of Ansco Company's $5,000 Loveliest Women Contest

Watch for further announcements in this magazine.

ALL of our readers who are interested in small folding cameras will be glad to have a copy of the new and complete catalogue 1914 of the "Ensign and Other Cameras" just issued by G. Gennert, 26 E. 13th St., New York City. Copy will be sent upon application.

THE growth in popularity of the small camera and the reasons underlying this growth, form one of the most interesting pages in modern photographic history.

For many years the small camera was an inconspicuous instrument in America, used only as a convenience, to be laid aside when more serious work was contemplated.



With the freer and more universal use of the anastigmat lens, many people realized that the small camera had numerous advantages besides convenience in carrying. It was not until the advent of the small camera made abroad (or as recently as the last year and a half) that discerning photographic investigators recognized it had capabilities which brought it into favorable comparison with the larger size cameras built for the most serious kind of work. It is therefore of special interest to the photographer—whether professional or amateur—the second edition and more complete catalogue of the International Photo-Sales Corporation of this city, who make a specialty of this line. The idea underlying the issuing of this catalogue is to place in greater detail before the photographer the merits of the goods they represent. Every camera, every lens and accessory listed has been selected with careful attention to the requirements of all phases of photography. By applying to the company's office, 235 Fifth Avenue, a copy of this attractive catalogue will be sent you, and please mention WILSON'S.

"Artura, the paper without a disappointment," is an expression with a world of truth and meaning, and any Artura user will be glad to tell you why. The price of a paper does not always determine its real cost to the photographer who uses it.

A paper may cost a trifle more—yet is so perfect and uniform in quality that a dozen prints may be secured from every negative without the loss of a single piece of paper.

Artura is such a paper, and its uniformity, latitude, richness of tone and long scale of graduation have made it a paper which the professional photographer may depend upon for the best possible results with the minimum of waste.

THE death of Mr. Edward E. Bausch, at the age of 76, is announced from Rochester, N. Y. Deceased was a well-known optician, and a brother of Mr. J. J. Bausch, of the Bausch & Lomb Optical Co., with whom he was in partnership from 1858 to 1866.

AN official photographer has recently been appointed by the municipality of Louisville, Kentucky. His duties will be to make photographic records of all improvement work undertaken by the city authorities.

THE Photo-Miniature No. 129 has reached us. It is devoted to "Group Photography," and like previous numbers, it contains a good deal of practical and useful information attractively presented. There is a series of group pictures to illustrate the principles set forth. We have pleasure in commending this volume and this well-known series to all photographers.

Photographers often have the idea that any carbonate or sulphite of soda will give the same result when used to make a solution of developer, but such is far from being the case. Sodas vary greatly in the percentage of pure carbonate or sulphite which they contain. And no one knows this so well as the manufacturer who depends upon the uniformity of his chemicals for the uniformity of his product.

If tested chemicals are necessary for the successful manufacture of sensitive photographic material, they are just as necessary to the successful handling of that material in making negatives and prints of uniform quality.

When you see E. K. Co. Sodas specified in a formula, you can be sure the best result will be secured by using Eastman Tested Sodas. You can also be sure of securing the same result at any time, as these sodas do not vary over one per cent. in strength and purity. They are 98% pure—and this standard is rigidly maintained.

MRS. CLARA BARTON DREW announces a partnership with Miss Carrie B. Hicks, photographer, of Brooklyn, N. Y., and assures the public of quick and finished service in all branches of photography.

THE DREW STUDIO, Ansonia, Conn.

GOLD AND DIPLOMAS OF HONOR AT CEDAR POINT CONVENTION, AUGUST 4, 5, 6, 7.

TWO GRAND PORTRAIT PRIZES, PAYABLE IN GOLD and open to all photographers in the United States, Canada and Mexico, will be awarded.

First Prize, $200.00. Second Prize, $50.00.

RULES.

The following rules will govern:

1. Exhibits must consist of three or more pictures, not less than 7x9 inches in size, framed or unframed, with or without glass.
2. An Entrance Fee of $2.00 must be paid to J. H. Brubaker, Vice-Pres., O. M. P. A., Grand Rapids, Mich., on all entries for the Grand Prizes.
3. No entrance fee will be charged on Complimentary Exhibits.
4. No names will be permitted on pictures exhibited for Grand Portrait Prizes.
5. Competent Judges will be selected, and a Square Deal is assured to all.
6. Names of Judges will not be divulged until after Awards are made.
7. Pictures will be rated on Composition, Tone Values, Background Treatment, and Technique, 100 points being considered perfection and 25 points being allotted to each of the four divisions.
8. A limited number of Diplomas of Honor will be issued by the Judges to those whose work is deemed worthy of Special Merit.
9. The Association will not be responsible for any loss or damage but special precautions will be taken to insure the safe return of all pictures submitted for exhibition.
10. All exhibits must be Prepaid and reach Cedar Point no later than Saturday, August 2nd, 1914.

NOTE.

Address all correspondence relative to Exhibits to J. H. Brubaker, Vice-Pres., O. M. P. A., Grand Rapids, Mich.

Address all packages to J. H. Brubaker, V.-Pres., O. M. P. A., Cedar Point, Ohio, on Lake Erie, via Sandusky, Convention Hall.

Get Busy. Even though you should not be able to "cop" one of the Grand Portrait Prizes, a handsome Diploma of Honor would prove well worth your best efforts.

A NEW MULTIPLYING PROCESS.

A FIRM bearing the name of Aquachromo-Gesellschaft has been founded in Berne, and has secured patents in all civilized countries for a multiplying process that has been invented by a Swiss specialist.

Many and varied uses are claimed for this new process, especially for the printing of many colored illustrations, whether sketches or half-tone prints. Several colors can be printed at once without having to apply the color to the press at every impression, and with a single application of coloring matter 100 to 200 impressions can be made, according to the intensity of the colors used, and with careful handling of the press the number of impressions is unlimited. But the particular point to be noticed in this new process is that in contrast to the hitherto known methods of manifold reproductions, no oil colors are used in the application, but an expressly prepared coloring matter, soluble in water, which gives to the pictures, especially those in half-tone, a very clear and strong impression. Moreover it is claimed that this new multiplying process is not only extraordinarily cheap, but also so astonishing simple that it can be handled by any novice without any trouble or previous experience, and without any adjustment of the machinery. Manufacturers of aniline dyes, inks and paper, and also those owning heliographic and photographic establishments, should take particular notice of this new process.—*British Printer.*

Have you ever been disappointed to find the highlights in your negatives clogged up by halation when you wanted them to be sparkling and crisp?

Have you ever been disappointed to find so little gradation in the half-tones after you have been most careful in arranging your light?

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To be photographed is becoming one of the habits of the rich woman, and the prices of the smart photographer are rising.

A remarkable thing about this prevailing habit is that the photographer as well as the clients are of the feminine sex—that is to say, the really fashionable ones. To obtain the combination of grace and charm which is the "note" of the up-to-date photograph, it seems necessary that it should be taken by a woman.

Fashions come and go as to how to be taken. There has been a craze of "backs"—that is, photographs in evening dress, in which the sitter looks over her shoulder. At the moment, to be taken against a window of small square

panes of glass is one of the most popular poses. Many women in London are "done" at least every six months.

Rapid Fixing Baths.

Welborne Piper has been examining the rate of fixing with ammonium chloride as an addition to the plain hypo solution and finds that the increase in rate of fixation is not in accordance with the formation of ammonium hyposulphite, or the complete conversion of the whole of the sodium salt into the corresponding ammonium one With a 20% solution of hypo the addition of about 5% of ammonium chloride gives the most rapid fixing With 40% hypo the addition of 1¼%, and with 10% hypo the addition of 5%. Confirmative experiments were made with a constant proportion of chloride and varying ratios of hypo- and practically the results are confirmed. Apparently 4% of chloride and 20% hypo is the best concentration. The cost of such a bath is rather more than a plain hypo solution of 40%, which Piper has found to be the most rapid in fixing. He also suggests that the addition of 10% of ammonia, sp. gr. 0.880, to a 20% hypo bath gives a bath with the same fixing speed that a plain 40% hypo bath has, but it costs nearly twice as much.—*B. J.*, 1914, p. 193.

It is obvious that one has to take into consideration solubility of the two salts, and probably also the solubility of the silver hyposulphites formed. The suggestion to use ammonia instead of the chloride cannot, I think, be justified; for if there is interaction between that and the hypo there must be formed sodium hydroxide, or caustic soda, and the action of this on the film is not beyond question. Piper's article raises the whole point as to whether after all it is of such moment to have rapidity of fixing. Except in the case of a few plates the rapidity of fixing is satisfactory and another five or ten minutes is surely of no such great importance.

A Novel Process in Manufacture Introduced by Baryta Limited, of London.

Interest has developed in London in a new process in the production of photographic paper which obviates the necessity of employing a pure raw paper base as heretofore, and enables photographic papers for the first time to be produced from start to finish in Great Britain, America or any other country without going to France or Germany, which countries have had hitherto a monopoly in the supply of the raw paper. Photographic paper under this new process is produced by Baryta Limited, a London company having a debenture and share capital of £215,000, of which only about £136,000 is issued. It owns two factories, one at Letmathe, in Germany, and one at Watford, England, the latter of which has only recently been completed.

Much business has been done for some time past in Baryta-coated papers in Germany and the company will be placing its finished photographic papers on the market in London within the next few weeks. It is understood that negotiations are proceeding for the sale of the American rights. By its method of manufacture, which enables a cheap raw paper to be employed in place of the expensive pure paper, the company is able to produce photographic papers of high grade at a very considerable reduction in cost, giving it an advantage, it is claimed, of something like 40% over all other manufacturers.

The company is also doing a good trade in ceramic papers used in the manufacture of pottery, and it controls certain emulsions which have advantages over the emulsions at present in use and for which the Baryta company's papers alone are suitable.

The process is covered by a series of master patents and the company owns the patents for all the important paper producing countries in the world.

Current Topics in Leading Periodicals.

Bleaching and Toning Bromide, April *Camera*.

Cutting Glass with Wheel and Diamond, April 17th, *British Journal*.

Making Up Developers, March 27th *British Journal*.

Making Lantern Slides by Wet Collodion Process, April 15th *Bulletin*.

Professional Photographic Methods, March 27th *British Journal*.

Producing Gray Prints Upon Matt Paper, April *Camera*.

Photographing Flowers and Gardens, April 10th *British Journal*.

Rainy Day Photography, April *Photo Times*.

Sketch Portraiture, March 20th *British Journal*.

Soft Focus Lens vs. The Pinhole, The, March *Camera Craft*.

Soft Toning Papers, April 3rd *British Journal*.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, ETC.,

Of Wilson's Photographic Magazine, published Monthly at New York, N. Y., required by the Act of August 24, 1912.

Editor, Thomas Coke Watkins, 122 East 25th St., New York City.

Managing Editor, Thomas Coke Watkins, 122 East 25th St., New York City.

Business Managers, Thomas Coke Watkins and Edwin S. Brown, 122 East 25th St., New York City.

Publisher: Edward L. Wilson Co., Inc., 122 East 25th St., New York City.

Owners: Thomas Coke Watkins, 122 East 25th St., New York City.

Known bondholders, mortgagees, and other security holders, holding 1 per cent or more of total amount of bonds, mortgages, or other securities: NONE.

THOMAS C. WATKINS, Editor.

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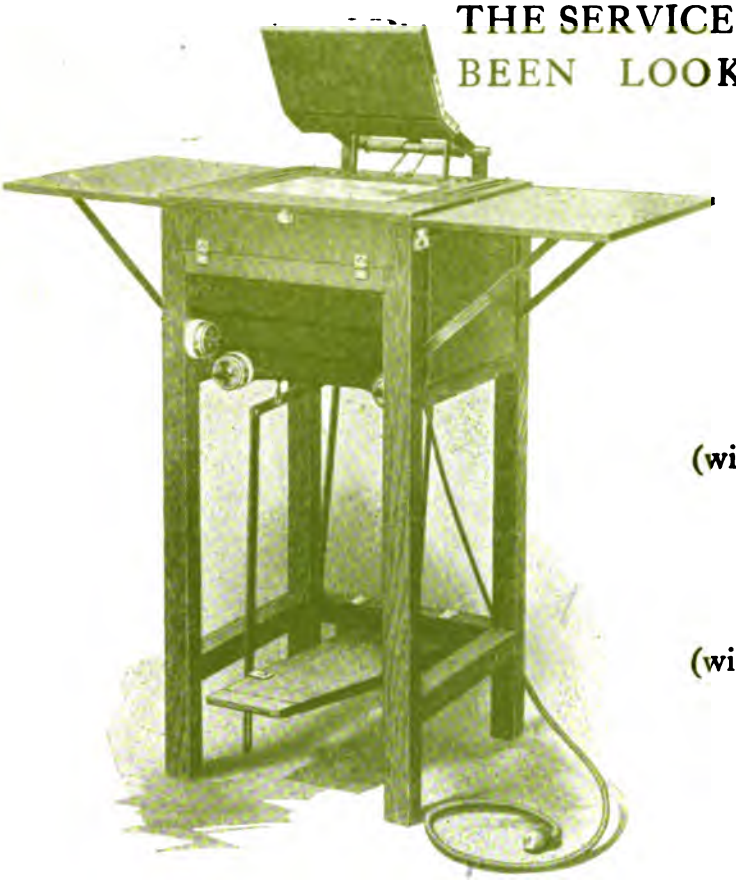

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THOMAS COKE WATKINS, Editor

Official Organ The Women's Federation of Photographers

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SUBSCRIPTION in advance, United States and Mexico, $3.00; Canada, $3.25; Foreign Countries, $3.50. Single copies, 25 cents. Subscriptions begin with current issue unless otherwise ordered.

CHANGE OF ADDRESS.—When a change of address is ordered, both the new and the old addresses must be given. The notice should be sent two weeks before the change is to take effect.

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ADVERTISING.—Copy, final instructions, and cuts for advertising must be received on the 25th inst. preceding the date of issue on which the advertisement is intended to appear. Rates on application.

CONTRIBUTIONS.—Original articles on photographic subjects are solicited. All manuscripts, drawings and photographs are received with the understanding that the Editor is not responsible for their loss or injury while in his possession or in transit. Return postage should be inclosed with each manuscript submitted, and a copy should be retained by its author.

EDWARD L. WILSON CO., Inc., 122 East 25th St., New York

THOMAS C. WATKINS, President — EDWIN S. BROWN, Sect. and Treas.

AMERICAN NEWS CO., Distributing Agents for U. S. — HOUGHTONS, Ltd., London, Eng., Agents for Great Britain

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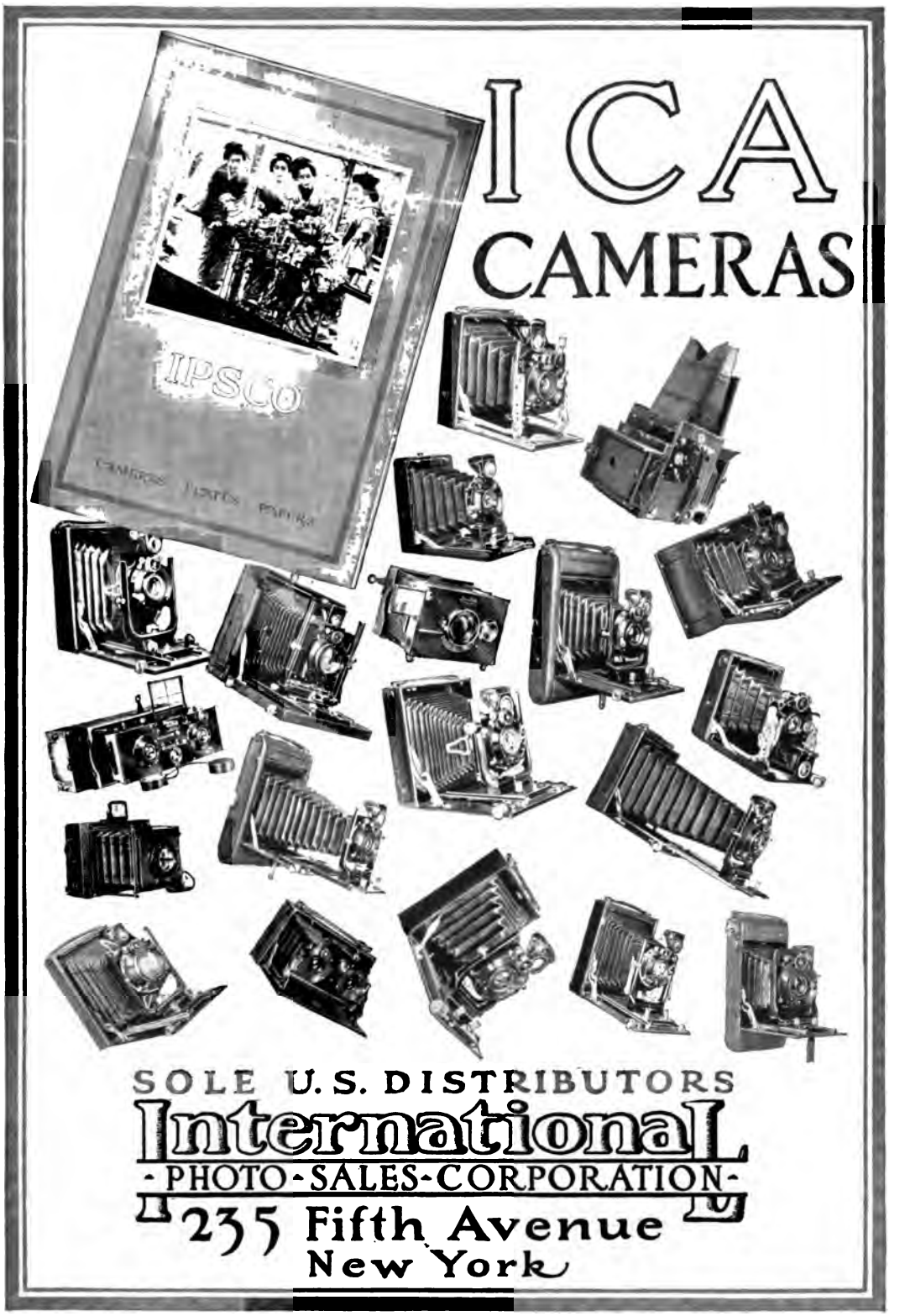
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FOUNDED IN 1864 BY EDWARD L. WILSON

VOL. LI. JUNE, 1914 No. 6

JOHN H. GARO—A STUDY AND AN ESTIMATE

BY A. J. PHILPOTT

MAN is naturally an artist. He takes the crude things of nature, including the sciences, and shapes them to his own purpose. How well he shapes them depends on his knowledge of the materials he uses, and how far there exists in him the imaginative quality which we call *Art*, and which in its highest state, we call a Fine Art.

The artist who is a "fine" artist, is simply one in whom there exists a super-sensitiveness and a super-intelligence regarding the work he does, and the power to do that work as he feels and understands it.

Such a man is John H. Garo, the Boston photographer, whose work for years has been so distinguished and of so superb a character that he stands practically alone, as all great artists stand, with hosts of admirers and followers—the confusion and despair of most photographers. His methods have been studied and copied, but his genius has never been fathomed or circumscribed by the ordinary photographer, for the simple reason that a great artist in any line is very much of a mystery even to himself. Garo is never at rest in his work. What he does to-day is but the stepping-stone to something more subtle, more artistic, and more wonderful than he will do to-morrow. You think you've got a "line" on him, but the next time you see him or his work, you find that you were slightly mistaken, for he has left the precise spot where you thought you had him cornered and has bobbed up somewhere else with the same smile but with such new and bewildering examples of his work as upsets previous opinions and speculations regarding the man.

A few years ago in a magazine article I said that the difference between John H. Garo and most portrait photographers was that Garo was an artist. Some artistic friends of mine agreed that that was too sweeping a statement and I felt that perhaps my judgment might have

THE WHITE FEATHER
BY J. H. GARO, BOSTON, MASS.

been based too much on enthusiasm. So I now wish to qualify the statement I made at that time and say that John H. Garo is not only an artist in his work, but a great artist. And this statement is based on the maturer judgment that has come from study of the man and his work since that other statement was written.

Garo is so much of an influence in Boston, yes and among the photographers of the country, that they are scarcely conscious of his influence. His work is in their minds so much that they do not realize themselves how great his influence is. He is one of the few men to whom photography is neither a problem nor a science, but an art. He has so far mastered the problems and the sciences involved that they have become the tools of his artistic fancy and genius.

Now one of the things that has been up for discussion ever since photography was discovered, is whether it is an art or a science, or whether it was possible to do really artistic work with the camera. John H. Garo is the answer to that much-discussed, much-mooted question. But after all such a question could only be discussed by people who had a narrow conception of the term "art" and did not know the full meaning of the word "science."

Everything that a human being does consciously is an art, and any scientific discovery is but an added tool in the craftsman's shop—a tool that may give the mind larger and freer scope in its work.

The difference between the big and the little artist is the difference in the power and capacity to make his tools and knowledge the instruments of his imagination. And, of course, that means that the distinctive characteristic of the great artist is his imagination.

PORTRAIT
BY J. H. GARO, BOSTON, MASS.

John H. Garo has in the largest measure a fine, healthy imagination which was affected and actively stimulated by light, color and form from the beginning, as is the imagination of that entire group of people that has been classified as artists—meaning painters and sculptors. Garo falls logically into this classifica-

JOHN H. GARO

tion, although the tools he uses to accomplish his work are primarily optics and chemistry. But the end to be attained is very much the same for the mental attitude required in the kind of photography he does is very much that of the painter or sculptor. The creative power in such men comes through a developed power of visualization.

Now curiously enough the painter who sees and understands color and light and form would make the best photographer, for these are the very things the photographer has to deal with. But the painter has an aversion to the science of photography—to the "trappings" of the thing. And the result is that the people who, as a rule, take up photography are those who find enjoyment in the working out of the scientific principles involved; and they are usually people who know little or nothing of the stereoscopic relations of color and light; of pigmentary values; or of form and composition.

Herein is where John H. Garo is supreme in his work, for he was an artist instinctively and unconsciously before he studied the science of photography, and

RINEHART. STRAUSS. STEIN. PIERCE. GARO

the day he mastered the science it ceased to be a science with him and became a tool to satisfy his own artistic nature. He has the scientific mind but it is dominated by the artistic mind of the man. Or to put it another way: he has the patience and intelligence of the scientist and the enthusiasm and imagination of the artist.

John H. Garo not only knows the science of photography, but he is a skilled draftsman and an excellent painter in both water-color and oils. His drawings from life and from nature in charcoal are done with fine certainty, and his paintings from nature show rare skill in technique and in rich color sense. So when he uses the camera he does so with this skill and knowledge in the background, and it is a valuable background from which to begin the work of photography.

But it plays into Garo's work in a rich variety of ways, especially in his portrait work. I firmly believe he is the first photographer who has really made logical photographs in an artistic way with the camera. I mean by logical, portraits in which you do not feel that the photographer was striving to do something he didn't fully understand. He doesn't strain for his effects in light and shade and there is always unity and harmony in his pictures, even when the lights are distributed and not concentrated on a given point. He understands light distribution, especially in groups, and yet he retains the unity of his composition.

I have in mind a group portrait of a mother and several children—fashionable people, and consequently the most difficult to get into an artistic group—which is a masterpiece in its way. There is

THE BLUE RIBBON

BY JOHN H. GARO

"EARLY SPRING"—COPY OF PAINTING
BY J. H. GARO, BOSTON, MASS.

unity in the composition; the age and character of the children are suggested in their poses, and withal the fine dignity of the mother is felt without being conspicuous. She is the center yet each child is also felt in the group—and seen. The light is so distributed that each face and figure appears to advantage yet somehow the interest centers on that mother who is seated in the center of the group. And by the way you feel the sort of fashionable distinction which is required in such a picture, but it is combined with such utter naturalness that you are not conscious of it. Ask some portrait painter — any real painter — what he thinks of posing a fashionable family group, and then, if you ever have a chance, see this achievement of Garo's.

He senses character and he seems to know almost unconsciously what is required in posing and lighting a portrait to give it its true character. In point of fact his portraits don't look as if they were posed, and yet there is nothing of a fugitive character in the expression or the pose; nothing that looks as if it were a momentary expression caught by a fortunate "snap." No, there is usually quiet, natural dignity in his poses, and you feel that the character revealed is the normal, unconventional character of the person.

Looking at his portraits of children you feel that he understands the child character perfectly and that he knows exactly how to bring out those qualities in expression in the child which we most admire. Yet when you look at his portraits of young women, in whom he senses character and expresses the soft, rounded beauty of flesh you feel that perhaps this is his forte. But no. For

BY JOHN H. GARO
BOSTON, MASS.

when he makes a portrait of a middle-aged man or woman the result is the same, only he likes to enrich the older and maturer portraits with deeper values in the shadows which give more emphasis to half tones and full lights.

BY JOHN H. GARO
BOSTON, MASS.

But besides his portrait work he occasionally takes his camera out into the fields and woods and brings back gems which make you think of the big landscape painters like Wilson, Inness, Corot, Claude, or some of the Dutchmen. Why? Simply because he sees nature in light, shade and composition as the big artists see it, and he sees portraiture as the big artists see and have seen it.

In his portrait work he occasionally uses a background that reminds you of what some people call a "Gainsborough background." Positively this is one of the worst backgrounds to use with a portrait unless it is used properly, and the only photographer I know that has used it successfully is Garo; for every spot in that background has a double meaning—it is a value in the composition as well as a form.

With his fine knowledge of color it is not surprising that Garo took up the autochrome and he did some remarkable work with these Lumiere plates. It might have been this which led him into that most difficult of all kinds of photography, what is known as "Gum photographs" or superposed pictures. In these he uses color and he gets effects by the superposition of these colors which it would not be possible to get by any other method. But really only a painter could hope to do this kind of work—a painter with a masterly knowledge of photography.

But aside from positive colors, he uses this same method in some of his monochrome work, getting a richness and a subtlety in the values that is extraordinary as well as a quality of luminosity that is very unusual. I recall one—a still-life, a dark bottle, a bunch of yellow grapes and some very delicate small glasses, transparent and yet reflecting light. You actually feel the color in this picture—for it is a picture, and a gem. The values are perfect and the composition is perfect.

BY JOHN H. GARO
BOSTON, MASS.

In his monochrome work you feel that John H. Garo senses all the rich possibilities of light and shade in black and white, or brown and white, or whatever the tint he uses. He feels these values much as the great etchers and engravers

like Rembrandt, and McArdel, and Zabinski felt them, and he knows his camera, and his negative, and his printing so well that he understands exactly what to get from each in the process of his work; and then he seems to know just how to mount the picture after it is done.

Is it any wonder that the big artists of Boston regard John H. Garo as a brother artist?

In his own genial personality he is as much a true artist as he is in his work.

PASTORAL
BY JOHN H. GARO
BOSTON, MASS.

PORTRAIT MR. B.
BY JOHN H. GARO
BOSTON, MASS.

DR. KARL MUCK
BY JOHN H. GARO
BOSTON, MASS.

PORTRAIT
BY JOHN H. GARO
BOSTON, MASS.

PORTRAIT
BY JOHN H. GARO
BOSTON, MASS.

REVIVING AND CLEANING PLATINUM PRINTS

BY "PROFESSIONAL"

To run the risk of cleaning or reviving any platinum print of consequence is a matter to be well considered before attempting such a piece of work, for the reason that a print of value may be completely ruined by treatment.

It has never been considered at all an easy piece of work to undertake, because of the risk, especially if the print is to be removed from a mount, so as to eliminate all the mounting material.

Quite recently we had three prints to clean for a customer, one a 10x12, the usual quality black print, all of the same kind, in platinum. They were excellent in quality, but the whites, or what would have been white, had turned a degraded yellow, and to make matters worse, two of them were mounted. All the information upon the subject was hunted up, and although two of the plans appeared to be feasible, we were loth to try them.

After a few days' consideration, one of the members of the firm suggested the use of oxalic acid as being likely to answer the purpose, owing to this acid being used to extract or destroy ink stains and iron mould, so a few prints in platinum were collected that had been laying aside for about seven or eight years, and which had turned slightly yellow, a trial being made with oxalic acid upon two of these, but the result was not satisfactory. The treatment cleaned the dirt off, the yellow color still remained.

Weak muriatic acid was tried with no better result. Almost in despair we tried a mixture of chloride of lime and water upon two more of our prints, because it did not matter whether they were spoiled or not; what we wanted to find out was how to get rid of the old yellow stain. The chloride of lime had no more effect than cold water. There happened to be a bottle of boric acid near. Thinking that this might aid in the matter, half an ounce, perhaps a little more, was dissolved in hot water and left to get cold. Some of the clear liquid was poured into a tray from the top of the chloride of lime, about four ounces, and some of the boric acid equal in quantity was mixed with it. A print was placed into this mixture and the tray rocked a little, the two prints removed and well washed in water. As the result seemed to be good, one more print was tried. After well washing, the prints were blotted and dried. When examined and compared, nothing better could be wished for. The customer's prints were carefully soaked and removed from their mounts, washed and dried, then they were submitted to the same treatment as the small prints, with a greater quantity of lime water and boric acid, with the result that the prints presented all the appearance of being newly made. They were recut near the edges and mounted upon new mounts.

Ten dollars was the price charged for this reviving, which proved to be very satisfactory to the customer, because, as he said, he thought the prints were rapidly fading, and the man who made them some eleven years ago, was out of the business.

This simple and reliable process may prove of value to others who at some time or other may find themselves in the same fix.

The prints perhaps will present the appearance of being semi-transparent. This will prove to be of no consequence, the whites of the print will be as pure and as good as they were when the prints were first made.

Boric, or boracic acid, as it is sometimes called, is not very soluble in cold water. It must be dissolved in hot water, the temperature nearing boiling point. A bottle of this preparation should be kept ready prepared, so that it may be used at any time. The bleaching power is effective with either a cold or a hot solution, or to be more precise a warm solution. In the latter instance the bleaching action is rapid. No wiping whatever attends its use. As a safe bleaching liquid for platinum prints it has proved to be unrivalled.

WINTER EVENING
BY JOHN H. GARO
BOSTON, MASS.

PROFITABLE SIDELINES—RESORT PICTURES

BY A. E. SWOYER

THE photographer fortunate enough to have obtained a footing in one of the large resorts needs no instruction as to methods of developing his opportunities; he has learned about all there is to be known about such methods, or else succumbed to competition, for nowhere is the fight for supremacy apt to be more bitter, while the short "Busy Season" must be improved to the utmost. There are, however, thousands of small towns throughout the country which are resorts in the sense that summer visitors patronize them to at least some degree, spend more or less money in the town and hence produce a certain proportion of the income of its inhabitants. There is no logical reason why the local photographer should not secure his quota of this money, nor can he fail to do so if he cares to proceed with intelligence; yet many a man either neglects his opportunity altogether or pursues it in such a half-hearted manner that he never even gets close enough to grasp its tail-feathers. The purpose of this article is to recapitulate certain more or less well-known methods of attracting the elusive dollar in a town of this class.

The first subject likely to occur to the local man is the little matter of post-cards, and he is liable to attempt to fill this market with half-a-dozen subjects—such as "Corner of Main and Second Streets," "The Big Elm," etc.—printed on cheap cards, and let it go at that. Now, such cards are well enough in their way and have a certain sale—but surely there is trade of a little higher class that is worth going after; to meet it, get out a series of really meritorious cards, printed (photographically) on the more artistic surfaces —there is a profit in them at a nickel each. Then, from the same negatives, make prints on double-weight paper—preferably plate sunk and with a tinted border—punch holes through the edge and bind them with ribbon in the form of an album; these can be sold at a price worthy of the work involved, particularly if the prints are mounted a little off center so that they can be trimmed for individual framing, if desired. Or, if preferred, prints of this sort may be made in the ordinary manner and mounted in the regular photographic albums—there is a good sale for them either way, particularly if you have hand colored them with good taste, although the first named method is the most artistic.

This idea is fairly obvious; the field offered by the various hotels and boarding houses is more often overlooked. You will, of course, be acquainted with the proprietors of these, because you will have arranged with them to display your cards and booklets; what more logical, then, than to suggest the preparation of advertising booklets and similar matters for the hotels themselves? You won't have to be much of a talker in order to convince the proprietor of the policy of supplying his guests with free postals showing views of the hotel, or with stationery imprinted with exteriors and interiors of his buildings; simply explain to him that his guests in using this material freely—as they will—send his advertising direct to interested parties, that it carries their personal endorsement and that it is obtainable at but a fraction of the cost of other advertising of less value. You will have to make him a reasonable price for the work, but on the other hand all that you have to do with it

will be the making of the negatives, which may be turned over to one of the large commercial houses for reproduction. Incidentally, you are dealing in large quantities, take no risk and settle for cash on delivery of the material, instead of waiting for the sale of it a bit at a time—as with your own cards—to bring in the returns; therefore, you can afford to make some concessions.

If your town is one of those boasting a "Summer Colony"—a group of residents owning summer homes or bungalows within your confines—you may find in it a source of profit; the owner of such a possession is only surpassed in pride of ownership by the parents of a new baby, and it is your province to develop this failing. Individual stationery, postcards, an occasional enlargement—all may be sold to such a man, provided the right method of approach is used. It is a good plan, for example—since your prospective client may shy off like a skittish horse if he thinks you are trying to sell him something—to ask permission to photograph his place "For use in one of the architectural journals"; this is not a falsehood, inasmuch as there is a ready market for exactly such prints, as has been stated in the articles on "Press Photography." But, when you show him the results, if he does not ask the privilege of buying a few of the prints almost as if he were requesting a favor, then either human nature has changed or your work is worse than the average. Calls for similar work among the other members of the colony are bound to result, inasmuch as your first client will unwittingly give you the best sort of advertising when, in the pride of ownership, he exhibits your prints.

The same principle applies to excursions, automobile parades and similar events; you can't exactly "ring in" on affairs of that sort, but nothing is going to prevent you from making such pictures as you see fit—nor the participants from buying them when made. Incidentally, when the first person says that he wants to buy prints, then is the time to pull out your pad and pencil and turn the remark into a definite order; the enthusiasm at that time is higher than it may be later, so that the proportion of orders will be larger, while—since the "follow the leader" is a human failing—you are more apt to sell prints to the entire crowd. It will be unnecessary, and perhaps unwise, to suggest that a deposit accompany each order; your loss from refusals will be very small from that class of people, while if you reduce the proposition to too much of a business basis you will lose caste and future custom.

It may be that your town is a resort famous for its fishing; if so, you should be prepared to "cash in" on the fishermen. A neatly worded sign on the boat livery where it can be seen by the returning boatmen will bring a certain amount of business your way, although some of it you may have to pursue. No lucky fisherman will escape you, however, for the desire to take home proof of his prowess is inherent in every angler and the suggestion of your signboard will be enough to draw him studioward. Naturally, a man posing complacently behind a string of very dead fish will not give much leeway for the exercise of your artistic skill—but suppress your yearnings for Art, remember that the eagle on the bills that he hands you are the noblest creation of the hand of man, and be satisfied.

The local correspondent for the city paper is another man that you want to know; he knows, or ought to, that his "stuff" will go a good deal better if he has proper photographs to go with it—and it is your job to furnish those photographs. There will be no large margin of profit in it for you, but inasmuch as many of the prints may be made from negatives already in your possession, such payment as you receive is practically all clear gain.

So much for actual photography in your studio or in your neighborhood; an acquaintance with local conditions will doubtless suggest as many more.

In conclusion, the writer would say that he realizes that some of the methods suggested may appear elementary or

worthless, and that others seem beneath the dignity of the profesional photographer. Nevertheless, that which is elementary to one man may be higher mathematics to another; a method worthless in one locality may prove a bonanza in another, while making money is beneath the dignity of no man, for the stiff-necked one passes by the dollar on the sidewalk.

CHANGING THE COLOR OF LANTERN SLIDES BY REDEVELOPMENT

BY GEORGE SMEE

THERE are times when making lantern slides that the time of exposure may have been somewhat short, and the forcing in development has given a very unsatisfactory color. Both these may be changed and intensity added so that, what would be otherwise a useless slide, may be brought up to a suitable color and the correct intensity gained by simple treatment.

The method of bleaching I have always found to affect the result, the bleaching mixture that I have found in my own practice, is the following:

(No. 1) Bleaching Solution.

Potass bichromate	60 grains
Water	5 ounces
Pure hydrochloric acid	1 dram

Place the defective slide in this after it has been washed for ten minutes in a stream of water. This is to make sure that all the hypo is washed out of the film. The time of bleaching is very short in many cases; only half a minute. The slide must now be well washed for several minutes in a stream of water, and redeveloped under ruby light, with any good metol hydroquinone; redevelopment will be complete in the course of about one minute. The slide must now be washed again and dried.

Sometimes the intensity after this treatment is insufficient, although such cases may be rare. Further intensification that will bring the slide up to the standard may be accomplished by bleaching it once more in the following bleacher and bleaching it with a solution of sulphite of soda:

(No. 2) Bleaching Solution.

Water (hot)	8 ounces
Bichloride of mercury	30 grains
Potass bromide	30 "

When this is cold insert the lantern plate. Let it bleach clean through, wash it thoroughly and blacken it by immersion in a strong solution of sulphite of soda (not sulphate). After this operation wash again well and dry. The slide now will have attained the requisite density, the color will be identical with slides developed with pyrogallic acid. To obtain slides of a chestnut brown color they must be bleached in the following bleacher:

(No. 3) Bleach.

Red prussiate of potash	60 grains
Potass bromide	30 "
Potass iodide	20 "
Water ammonia	4 drops

The slide when inserted into this solution will now become bleached, when it must be washed well and converted into sulphide of silver by immersing it in the following sulphide bath:

Water	5 ounces
Sulphide of sodium (not sulphite)	60 grains

The color will soon become a bright chestnut brown, when it must be washed slightly and immersed in a ten per cent. solution of common alum for a short time, again washed well, dried and mounted with a suitable mat, or mask, and finished by binding in the usual way.

POINTS ON PORTRAITURE

Mr. H. Essenhigh Corke gave a lecture very full of useful tips at the Royal Photographic Society on March 3, his subject being "Portraiture for Beginners." It is difficult to epitomise so practical a lecture, but we give here the essentials.

It is of no advantage to the beginner to secure the use of a professional studio. He may be more hindered than helped. The professional merely uses the studio to get the varied results demanded of him. The amateur had better work at home.

A lens of rather long focus is desirable, and it is possible to extemporise a lens of rather longer focus, say a quarter-plate camera with a 5½ in. lens, by adding a spectacle lens, which can be done cheaply at home.

Work with the ordinary camera to which you have been accustomed, and work quite small, so that the head is only the size of the thumb-nail, and rely on subsequent enlargement for your finished result.

If a sitter habitually wears glasses, he should be photographed with them on. In order to obviate reflection from the glasses, glassless rims have been advocated; but this device is not to be recommended, because it alters the habitual expression of the eyes.

Under-exposure is more fatal in portraiture than in any other branch of photography. Expose for the shadows, and be careful not to over-develop.

In outdoor portraiture the sitter should be placed in such a position, relative to tress or other objects, that some of the light can be cut off from one side or the other, or the overhead light controlled.

The light can be controlled to a great extent by using a large sheet of art cardboard placed in various positions.

An excellent plan is to work with the sun itself as the light on the face, the best effects being obtained an hour or two after sunrise or before sunset.

In indoor work the sitter must be placed at a considerable distance from the window. To place the sitter near the window does not actually reduce the length of the exposure, because the shadows for which one exposes are just as dark with the person close to the window as they are at some distance, and the result is a hard one.

It may be desirable to cover up the lower two-thirds of the window with butter muslin or a double thickness of lace curtains.

Exposure should be full. With an aperture of F/6, good indoor exposures are possible in four to six seconds.

As a rule, the camera should be the same height as the sitter's eyes; in the case of a stout person it is advisable to look up at him slightly.

The head and shoulders need not be directed in exactly the same way. The face may be straight and the shoulders somewhat oblique. There is more sense of animation if the head is turned more to the camera than the body.

As far as possible, keep the hands and the face in the same plane.

On taking a side-view, the round-shouldered appearance will be much decreased by getting the sitter to draw back the arm so that the elbow is more nearly in a line with the back.

Side lights give to a weak face an appearance of additional strength.

HOW LEADING PHOTOGRAPHERS MOUNT THEIR PRINTS

BY SIDNEY ALLEN

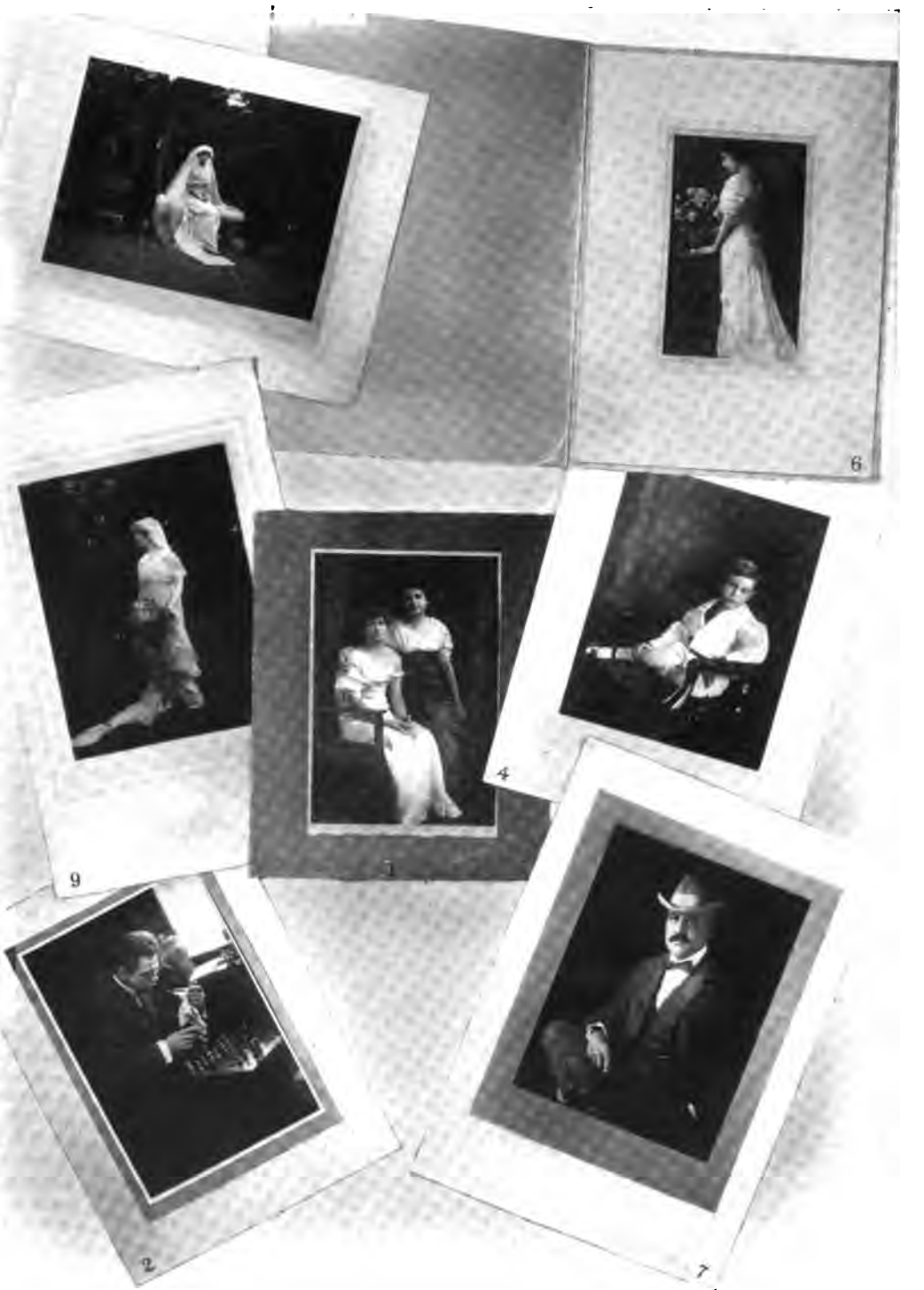
A GOOD mount is a business asset. No matter how excellent the likeness or the technical merits of a print may be, a mount that is pleasing to the eye will increase its selectability and facilitate matters across the counter.

Ever since the gilt-edge, stiff cabinet size card of Sarony's time has gone out of fashion, and the prints have steadily increased in size, mounts no longer occupy the subordinate place of furnishing a mere backing, but play an important part in the artistic make-up of a print, very much the same as the margin in an etching or any black and white production that is worth framing.

The mount is there to enhance the appearance of a print and to show it to its best advantage As we study the various methods of mounting prints, as practiced by our leading photographers, we are astonished at the paucity of ideas. There are really only four methods in use: the studio-made mount, the ready-for-use manufactured mount, the "printed in" margin, and the hand-made or printed border embellishment.

The studio-made mount (figs. 1-3) is of amateur origin. It is a remnant of the later part of the nineties, when the leading pictorialists indulged in excessive multiple mounting which often resembled a salesman's sample sheet. It is now used with more discretion, but it looks at its best a trifle amateurish and old-fashioned. Not that it is not good in its way, but we have seen too much of it. It is fastidious rather than practical. It is used at present largely by photographers who put a special stress on the "artistic" element of their work, and by home portraitists who have been recruited from the ranks of the amateurs. Of the three samples we give preference to fig. 3. It shows consideration of color, texture and proportion, and the material employed has a certain solidity to it. Fig. 1 represents the regular pictorial mount, it is simple enough but rather flimsy and ordinary looking. Its only note of distinction is the rough edge effect of the lower border. Fig. 3 shows a triple mount. This is about as far as one can go in multiple mounting without making one's products look affected, and even then it seems like a waste of effort, as long as we can procure a pleasing effect with two overlaying sheets as well as with three. The margin should always be considerably lighter than the print, and the intervening border either very light as in fig. 1, or in a middle tint between the color of the print and margin.

The "shop mount" of course is a great convenience (figs. 3-6). The place for the print is clearly marked by the manufacturer and the finishing department has nothing more to do than to stick it there. It is decried by some practitioners, yet there is such a variety of stock mounts that it is in no way impossible for a gallery owner to use them and yet give an individual treatment to his prints. He has to exercise his good taste in the selection; after that he enjoys the decided advantage of applying a labor-saving device. The ready mounts always look a trifle hard and business-like, but the latter should be no objection. The mount, fig. 4, with the monogram in the center of the


5
6
9
1
4
2
7

lower margin, has decided merits. It is neat and precise looking, simple and elegant, and in a way more to the point than any of the multiple mounts. Also the stiff mount, fig. 5, with the tinted line around the print, is in good taste, although I was never very enthusiastic about the "impress" effect, as if the photographic print had been made from a metal plate. This is by far more suitable for a photogravure in heliotrope reproduction, which is used by some European photographers instead of the regular printing methods. The frame idea is elaborately carried out in fig. 6, one of the most expensive mounts on the market. It looks more substantial, and makes the impression as if the customer is really getting something out of the ordinary for his money. It is not my intention to speak in this article of all the

8

11

10

3

12

varieties of inserts, flexible covers, enclosures and finished folders. The present trend is towards a simpler and stiffer mount, which though still flexible would need no special enclosures and would lend itself to the portfolio idea, of which I will speak later on.

The printed in border (figs. 7-10), showing either one broad strip or two strips, one narrow and wide one, connected as in fig. 8, or separated as in figs. 9 and 10, seems to be the most practical and logical of all present methods. It is photographic, produced by the medium itself. It looks at times a little

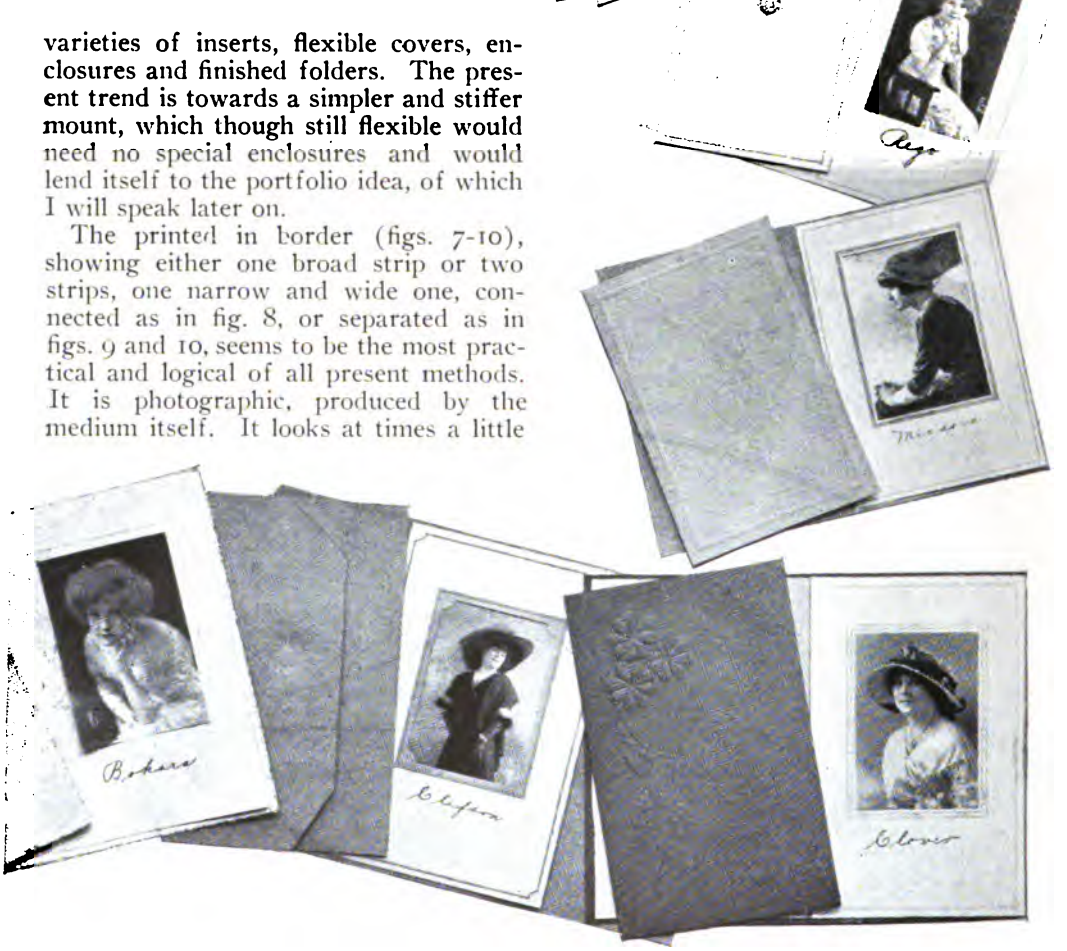


FIGURE 13

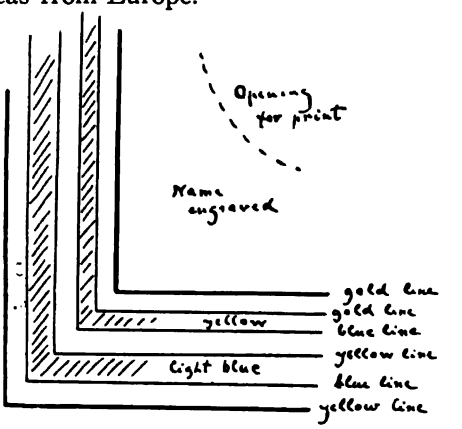
wishy-washy, but only when the outlines lack precision. Figs. 7 and 8 are free of this criticism. This method adds to the duties of the printer but lays off one hand in the finishing department.

The simplest way of all is to print the picture on a large sheet without any borders (fig. 11). It is solely a matter of placing. There is no objection to a print of this kind as far as I can see. It serves its purpose just as well, and it is really a relief to see a print made up in such a simple fashion, but I fear the public is too fond of embellishment to endorse this frugal style. The print should always be black and the name of the photographer at least be steel-engraved, a device that is now practiced by many of the leading establishments of Europe and which does away with the everlasting signing of prints, which really means nothing to the public. In the beginning it was an assurance of personal supervision, but at present where everybody has followed suit, it is not much more than a voluntary contribution to the photographer's vanity.

The style of fig. 12 is borrowed from the Secession. The print is mounted on a fibrous transparent sheet, and the print below this is backed by a sheet of dark grey or brown, just a little larger so as to produce the dimmed vision of a border. Stieglitz published many of his photogravure reproductions in this fashion in "Camera Work." If the prints were to be seen in a book this would be a fair rule to follow, but for ordinary purpose this manner is rather fastidious.

Fig. 13 is about the latest word in mounting. The sensitized paper is inserted in the mount. Very cleverly done, indeed, and the borders are hand-ruled and then worked in with a faint tint of water-color. The effect is exceptional, but a laborious process. It is monotonous work and yet needs a skilful person. Is it worth the trouble! Yes, if you can charge accordingly. It seems though that the boarders could just as well be printed.

The finest example of the printed border (the hand-painted method seems to be an adaptation) that I have ever run across was a folder issued recently by Romney, of Paris, France. It carried out the color scheme of the accompanying diagram. It was the most perfect thing I have seen of the kind. It seems that after all, we still get our most novel ideas from Europe.



That something new must happen in the way of mounts is imminent. Every ten years or so the public needs a new inducement. The "portfolio idea" looms on the horizon. It is the only thing I have noticed in the way of a possible innovation.

The portfolio is supposed to take the part of the old-time album. The prints will become inserts. The portfolio, either linen-covered or in leather, with embossed or hand-modeled ornamentation, will be arranged in such a way that the prints can be put in or taken out at will. If rightly handled it may increase the demand for prints. When the proofs are returned and the customer has selected, we will say, three from eight and is undecided about the others, the receptionist will suggest a portfolio with all the eight prints in it, to be presented to friends instead of a single one. The top-notch prices are high to-day, and another raise is possible only by offering some new idea. Perhaps the portfolio containing "different moods of expression" will meet with public approval, and if it does mounts will become not necessarily less elaborate but simpler inasmuch as the portfolio practice will do away with enclosures and single sheet products will be preferred to multiple mounting and the frame idea.

HOW TO MAKE A STUDIO PAY

IX. ADVERTISING YOU CAN DO

BY FRANK FARRINGTON

THE newspaper is but one advertising medium available to the photographer. It is the best where it can be used, but other forms of advertising are profitable and in some instances more desirable.

The city studio that cannot afford to use the daily papers must find other ways of interesting the public. It is not enough merely to open a shop, hang out a sign and display some samples. This may bring in a few patrons, perhaps an increasing number of them, but it will not develop business fast enough.

Advertising matter sent direct by mail to the possible customer is always good advertising if properly prepared. This kind of advertising cannot be done without a mailing list. It is necessary at the outset that the photographer have a good list of people to whom it is desirable to send advertising.

Mailing lists may be prepared in various ways. A house to house canvas may be made, not calling and asking names, but securing them from children in the street, from adjacent shopkeepers or professional people, from the butcher, the baker, the milkman, from anyone who knows.

Telephone directories help in making up lists. In the country the R. F. D. letter boxes bear names. In the village a bright high school youngster can go out and canvas the community and make up the list. The postmaster cannot help you except that he has the right to correct your list when it is made, changing addresses and crossing off names of people no longer getting mail at his office. He cannot add names. It is of course important that the list be kept corrected up to date in this way. The postage charge is the big expense in sending advertising by mail and when you are sending to people who have moved away or died, you are wasting good money that can produce no return.

The advertising sent out from a studio to a mailing list must be high class looking advertising. A cheap folder or dodger will do the business more harm than good. No one expects a good job of photography from a studio that sends out a crude job of printing. Photography is a branch of art. People expect only artistic things from an artistic place. Your work will be judged by your advertising whether it is fair so to judge it or not.

The advertising mailed direct may take up the same subjects mentioned in newspaper or other advertising, but the fact that one cannot mail advertising every day or every week makes it desirable that the important phases of the work be featured in that way.

The folders sent out by mail will have a much greater pulling power if illustrated in some way. The use of half-tone cuts on fine, coated paper will produce a photographic effect and small cuts can be made from any of your negatives at comparatively low cost. Good half-tones can be secured for 20 cents per square inch.

It is important in having an artistic folder printed that a good printer be selected. A fine job cannot be turned out by a poor printer any more than by a poor photographer. Great care should be used in choosing type and paper. If no illustrations are to be used, a heavy, antique paper is more attractive than a glossy stock such as would be required for half-tones.

Envelopes to match in size and if

possible in stock should be used and they ought to be neatly addressed. A good many advertisers seem to think that when they have prepared a good advertisement and had it well printed they can address it and stamp it as carelessly as they please. The appearance of the outside of the envelope depends more on the stamping and addressing than on the stock of which it is made. It is in the finishing touches that a photograph or a bit of printing is made or marred.

Calendars are used largely for advertising but it is very questionable whether the results are commensurate with the expense. Personally I advise against the use of calendar advertising. I do not believe it pays. It is valuable merely for the good will the presentation of a handsome calendar secures and that is not very much in this day of over-production of expensive advertising of the kind.

Blotters are better advertising than calendars and if a photographer will secure a series of attractive blotters with a good blotting surface and calendared back for the advertising and a picture, these may be made to attract favorable attention to the studio by mailing or delivering them monthly, putting a fresh one on the patron's desk every four weeks.

Business men are glad to get good blotters and public offices will allow the photographer to place them on the tables and desks. They will have the most advertising value when placed in the hands of the women of the homes, for while blotters are usually plentiful at the office they are scarce at home.

Souvenirs and novelties are largely used as advertising by some kinds of business but I believe the photographer might better use printed matter. Souvenirs of all kinds, like calendars, do not sell goods, do not cause orders for sittings or for more pictures. They merely secure good will. Good will is a good thing to have. You need the good will of your public but it is better business for the studio to get it by giving good values and treating its patrons right than by handing out expensive novelties—and none but the expensive ones are valued nowadays by the recipients.

Every now and then, particularly in the smaller towns, someone comes around with a plan for advertising on a desk or a call-board or something else to be put in the hotel offices. Let the other fellow have all this kind of publicity he wants. There is nothing in it for anyone but the man who sells it and the hotel. The salesman gets a commission and the hotel gets the desk or what not. You get nothing worth mentioning.

Similarly the advertisement on the church fair program or the home talent play program is valueless. Theatre program advertising is of very doubtful value. A prominent New York City photographer a few years ago spent several thousand dollars trying out theatre program advertising. He advertised on the programs of the city a certain style of photograph that he advertised nowhere else and that he gave no other chance to become known to the public. His entire expenditure brought him not so much as one single inquiry regarding the particular picture advertised. This may not have been a fair test but it was at least strongly indicative.

Of course in the home town it is often necessary to give the church or other organization people an advertisement. The dollar or so it costs should properly be charged up to advertising probably, but it is good will and not publicity that it gets. You cannot afford to antagonize the church people for the cost of the program advertisement, but do not expect to get returns of any other kind.

There are several kinds of popular outdoor advertising and they have their value for the photographer. Signs along the country fences may be made to pay if the studio is after the business of the farmers. These signs should be simple and attractive. They should bear the name of the studio in its signature style and the inscription "Good photographs" or something akin to that. If you are making a specialty of some special priced photograph and are advertising it, you may use the fence signs to say, "See BROWN'S $2. Photographs."

A large wooden sign erected at the entrance to town on each road, and painted up in attractive style with good lettering

and no hideous attempt of the local sign painter to put a portrait on it, will advertise the studio well to everyone coming into town.

Some sign of this sort may well be used to indicate to the touring public the place where amateur supplies and films are to be had. Automobilists are heavy film buyers and their trade is worth going after.

These country signs can be secured in waterproof paper, easy to put up and very durable. Care should be used in tacking them up. They should be placed against a solid surface rather than across an opening where the first stone thrown will tear them to pieces. If the state law, as in some states, makes it permissible for the public to tear down signs on the highway property, put them up over the fence on a tree where they will be on private property.

It will be wise to consult with the owner of the land before putting signs on buildings. A little visit with a farmer, asking permission to put up an advertisement and handing out a cigar or two will very often result not only in getting the sign up in a good place but also in making a friend and patron of the farmer. The farmers' business is worth going after and there is no surer way of getting it than to go right out into the country and meet the farmers on their own ground.

The big bulletin boards in town are rather expensive advertising for the average photographer, but it is sometimes possible to secure a billboard privilege where you can put up a board of your own and keep it posted with advertising matter at a slight cost.

The manufacturers of amateur supplies get out some very attractive signs and posters and if your billboard has your studio name at the bottom painted on, these pieces of advertising may be put on above the name from time to time. Where the studio itself is not right on the main business street, it is sometimes possible to get space for a billboard on the nearest corner, thus securing an opportunity to point the public to your entrance.

All the advertising helps of the manufacturers ought to be used. If the matter cannot be mailed, it can often be distributed by a boy. The printed matter itself costs nothing and the distribution need not cost much if handled properly.

Folders of this kind may be inserted with monthly statements and something of the kind ought always to be put into the package with the finished photographs going out. Don't wait for the manufacturer to ask you if you want advertising matter. Write to him for it. But get no more than you can use to advantage.

Of course the signs used around the outside of the studio where they can be seen from the street are advertising and they ought to receive the utmost attention. The same is true of the sample case outside or in the entrance. This case ought to be as artistic as it can be made and money spent in making it right is well spent. Wrought iron framework or ornaments can be used to advantage and the best thing the photographer can do who wants to know how to make his sample case attractive is to look up the entrances of all the high class studios in every town he visits. A trip along Fifth Avenue, New York, with this object in mind will prove very enlightening. It should go without saying that the sample case should show *very* frequent changes of samples.

It is rarely that prices are shown on samples in these cases and many photographers seem to have the idea that it cheapens the display to put on the prices. It does if they are put on in cheap lettering on cheap looking cards. But if they are high class looking price cards, they will cheapen the display, certainly not if the prices are high.

Lose no opportunity to see that the presence of your studio is evident to every passer by. Put signs wherever they may be placed without crowding and keep watch of them to see that they are kept looking right. The shabby sign is the sign of a shabby shop. So the public thinks. Don't forget your outside signs when refurbishing the studio because the complete refitting of the inside will lose

its effect on the people who notice the disgraceful outside indications.

Don't spend money experimenting with questionable advertising, Stick to the tried and proved methods, using your best intelligence and the utmost care in applying those and you will surely get results.

Previous Articles, "The Man and the Location" (Oct.) "Buying and Arranging the Stock" (Nov.) "The Treatment of Customers" (Dec.) "System in the Studio" (Jan.) "How to know the Profits" (Feb'y) Credit and Collections (March) Developing the Side Lines (Ap'l.) "Advertising You Can Do." (May) Subject next month: Business Getting Schemes.

MARLS AND OCHRES FOR OPAQUE WORK

BY GEORGE SMEE

VIGNETTING and blocking out different kinds of negatives can be accomplished in many ways. The printers of these photographs differ considerably as to the way in which this should be accomplished.

Some men simply adhere to the plan of cutting out a lot of spikes in a piece of cardboard after shaping the style of vignette, these shapes being principally of a pear, sometimes an oval, and sometimes circular, in any case the spike-cut cardboard must be covered with tissue paper of a strong variety. When if it is found upon making a trial print that the shape is not quite right, the defective part must be shaded in by absorbent cotton or a new piece of cardboard be cut. A first-class printer will not work this way. He will simply outline a hole of irregular shape, paste the cardboard around the hole, and stick upon this a piece of tough tissue paper, a paper that will withstand wetting. He will then proceed to paint a spike-like effect around the hole with some kind of an opaque, or with India ink, and by this means he will get just the kind of vignette he is aiming at in about half the time or less than a cut-out can be made.

India or China ink is too expensive for the general run of work, and I have made quite a number of these opaques and find that the mixture stated here answers the purpose admirably, both for vignetting as well as for blocking out undesirable parts of any negative, the mixture keeps well in a liquid form, or it may be made into cakes, by mixing the material to the consistency of stiff putty and moulding these shapes and drying. By this means all that is required to soften the mass is a little water and a brush, thus using this marl just like a solid water-color paint, while on the other hand, if mixed in a small pot it can be kept moist and ready for use at any time.

Making up the marl:

Red lead	1	tablespoonful
Chrome yellow	1	"
Red ochre	1	"

As all these colors are in powder form they can be well mixed with the bowl of a spoon in a large tea cup, or basin Being dry they quickly mix. A very small quantity of boiling water is added, only just enough to bring about a putty-like mixture, then a small quantity of office mucilage is added. This is to form a binder, which must be worked well into the colors by the spoon bowl.

The use of this mucilage saves the trouble of making up either dextrine or gum for the binder. At the same time it contains all the antiseptic and germ preventing material necessary for the effective preservation of the mixture without the extra use of formaline or any other germicide. The color of this mixture is more opaque than India ink, and costs far less.

Acme marl is made up simply of red lead and chrome yellow, in equal parts, and mixed as described, while a very dense blocking out material suitable for large work is made of the following colors:

Yellow ochre	1	tablespoonful
Chrome yellow	1	"
Red lead	1	"
Vegetable or ivory black	½	a teaspoonful

which must be well mixed in a dry state and ground with water and gum, the same as described. I have found these marls to meet all requirements, while for small work, such as portrait vignettes, none of them can be surpassed.

OFFICERS P. A. OF A.

MANLY W. TYREE

BY BAYARD WOOTTEN

PROBABLY the most conspicuous figure in the photographic world to-day is Manly W. Tyree, President of the P. A. of A. Mr. Tyree is a man of phenomenal ability, and rare personal charm. He is one of those unusual people who attract one by their genial good-fellowship, and yet when you come to know him more intimately there is no sense of disappointment. In no other man have I met the harmonious blending of contradictory characteristics that goes to make the man we know as Tyree. And he is SOME MAN. He is a man of such remarkable personality and force that he has been shoved into the lime-light of the photographic world whether or no. It was only some five or six years ago when I first met him at a Convention of the Carolinas and Virginia. This Association immediately pounced on him and made him President, and never was there such another meeting of the Association as there was the year he served, never were the demonstrations so well attended and seldom was there so much business transacted. If the attendance was not what Mr. Tyree thought it should be, he took himself to the "by-ways and the hedges," and brought in all stray sheep, because they could not stray away when he made the personal appeal to come, because HE wanted them. And his history with the National Association is pretty much the same thing. I was not there and did not see it, but I have followed it from afar, and it seems from his first appearance they "spotted" him, and have conferred one honor after another on him, until this year he is President of the P. A. of A., which is the greatest compliment in their gift. And right ably will he fill it. We know this from the ease and ability with which he presided at the meeting of the Board last January. No matter how weary and tiresome the proceedings were he never grew impatient and he never lost his judgment.

MANLY W. TYREE
PRESIDENT P. A. OF A.

To form a correct estimate of Mr. Tyree's many-sided character one has to see him in different environments. At the meeting of the Board his executive ability and his genial way of meeting difficulties was emphasized; but after all one has to see him in his own studio, in his own atmosphere, to see him at his very best. Here he is the delightful host, and here, too, one finds him surrounded by the very best of his artistic creations. One of the curious things about his work is you have to go to his

studio to see his very best. He never exhibits it. He always exhibits studies of women and children, while he excels in his studies of men to such a masterly degree, while the great Pirie MacDonald himself would set up and take notice if he could get a peep into his book of famous men. Here are all of North Carolina's most prominent Statesmen and Captains of Industry treated with a feeling as intimate and true as one could give in portraying personal friends. Here he shows a grasp of character and a freedom of treatment that makes his studies of women and children seem trivial.

Unlike the majority of people with personalty, Mr. Tyree is a painstaking and careful business man. There is nothing careless or slip-shod about his studio. Everything, even in the workroom, is as neat as a pin, and the whole machinery of his establishment moves as regularly and as easily as clockwork. In making pictures, Mr. Tyree can grasp the psychological moment with such sureness and certainty that he has it down to a science. There is no guesswork here. From the time the client steps on his stairs until his picturs are handed to him, he is in the tread of one of the cleverest "systems" that the profession knows. When one enters his spacious reception room there is a conscious feeling of rest and ease. The receptionist has been chosen with as much care as has the retoucher or the printer. Nothing is left to chance. It is her business to see that while she is extracting the dollars from the clients that they are kept happy and in a good humor. And she does it! When Mr. Tyree meets his clients in the light room he is always at his best, and there one can hear his most genial stories, and before one knows it, is under his wondrous personal sway.

Where is there another man who has an artistic temperament combined with such remarkable ability as an organizer? The P. A. of A. is to be congratulated. It takes a many-sided man to make a good President, and Tyree is THE MAN.

FILLING RE-ORDERS

BY G. FREY

It is generally conceded that the sale of duplicate copies from old negatives is an important, and quite profitable item in all well-regulated studios;—but there are also circumstances under which the filling of such orders is anything but a remunerative transaction from a purely monetary point.

This writer, for instance, at one time during his photographic career bought a well-established studio with thousands of really excellent negatives, and naturally felt elated over the apparent prospect of a fine re-order business; in this expectation he was, however, doomed to bitter disappointment because he soon found it would not pay to cater to that class of orders from those particular negatives.

The reason it didn't pay was from the simple fact that the final or net profits on those orders was in inverse ratio to the time consumed in trying to locate any given negative. In other words, my predecessor, though a splendid photographer did not, at that time, think enough of photography *as a business* to have some definite simple system by which any negative could quickly be located when wanted and since " Time is money" it certainly did not pay to waste from one to three solid days trying to find neg-

atives which would, in the end, possibly yield only $2.00 or $3.00. I was therefore actually glad when I had an opportunity later on to return to him the entire batch with thanks. In this case the shelfroom was more vauable than the negatives.

There is absolutely no reasonable excuse why similar conditions should prevail in *any* studio, and if the very simple and quick method as suggested below be carried out you will be enabled to find any negative in your house in much less time than it takes me here to tell you.

I take it for granted that most studios are still using the conventional Studio Register, and will very likely continue to use them for some time to come.

All you need in this case is ONE additional book, called an Aphabetical Index, and you can get such books in various sizes at almost any stationers. This index should be a separate and distinct book from your regular register, and it should be of sufficient leaf capacity to hold the names of from 4 to 6 consecutive registers.

The object and modus operandi of this alphabetical index is best explained by a simple example:—You have just made a sitting of Mrs. John Doe and have entered her order in the regular studio register, placing the different items of the transaction in their proper columns. So far you have followed your regular routine and everything IS all right as far as it goes, but it does not go far enough if ever you expect to make more prints from the same negative in the course of, say, two or more years, and this is exactly where your index comes in, and reduces the time and labor of finding the correct negative to the shortest time possible.

In your Index Book, under the letter D. you simply make this short entry;—

Doe, John, Mrs. 158,R 6.,

which entry reduced to plain English means that you find her order, including the number of her negative, on page 158, in Register No. 6.

The fact that her name may, in the course of time, appear several times under that letter does not in the least mitigate against the practical utility of this system, since it is an easy matter to ascertain from the customer from which of the different negatives the prints are wanted.

Now, since *all* your customers' names are supposed to have been entered in the same manner under *their* respective letters, it becomes evident that if ever our fictitious Mrs. Doe, or any other patron, should place an order for duplicates you do not have to take a vacation or a day off in order to chase over possibly hundreds of pages in your registers to find the negative. You simply go to your index *first*, and that short entry will lead you direct to the information you want in regard to the number of the negative.

One advantage the above method has over the Card Index System is that it is an utter impossibility to either mis-file or entirely lose the record of a transaction.

In my own practice I am using an Alphabetical Index of 300 pages, which, up to now, contains the names of four consecutive registers and covers the sittings or orders of the last 8 years; and the book still has sufficient blank pages for the next 6 or 8 years. I merely mention this to show that the method is thoroughly practical and economical, and also to enable you to purchase a book of such size as may best suit your individual requirements. The expenditure of from 50c. to $2.00 is, I think, the biggest-dividend-paying investment you could possibly make because that book will prove a conserver of time, energy, money and good cheer.

I don't think it quite superfluous to say, that no matter how simple or perfect any system may be, it was never intended or supposed to be a substitute for common intelligence or reasonable care; if therefore the negatives be incorrectly numbered or improperly filed away the cause of failure does certainly not lie with the system.

As to the filling and storing of negatives nearly every worker has his own pet ideas, and I, for one, believe that the utilization of the empty plate boxes offers about the most practical and convenient method of any. Each of these boxes, after the separators are dispensed with, holds from 18 to 24 negatives. The negatives should be placed in the boxes face

BY THE GERHARD SISTERS, ST. LOUIS, MO.
OF THE WOMEN'S FEDERATION P. A. OF A.

to face, and only those which have been intensified with one of the mercurial intensifiers need be separated from the others by two or more thicknesses of tissue paper. The numbers of the negatives contained in each box are, of course, written on either the short or long SIDE of the box, somewhat in this manner:

12415 The next box will show: 12436
12435 12456 etc.

It would be waste of time to write *each* negative's number; all you need are the first and last.

In the above example we have allowed 20 negatives to the box, and if any of those numbers should happen to be the number of a plate larger or smaller than those contained in the box, your REGISTER will indicate whether you have to look for it among the 8x10 or any other size. In connection with the above I should say that it is the far safer and more rational way to write the numbers on the box *beforehand,* and *then* put in the negatives, because by doing so you are enabled to have quite a number of boxes on your work bench at one and the same time, and to lay in the negatives as fast as you are able to properly read the numbers.

For numbering and marking negatives I have never as yet found a medium superior to Hartmuth's "Mephisto" indelible pencil, sold by any stationery, or drug store. Now, don't think that any other indelible would do equally as well, —it will not. The Mephisto makes a clean, clear mark and 'takes' easily to the film. The pencil should be used dry, i. e. without moisture on either film or point.

As intimated before, negatives are an asset and deserve to be treated as such, and if you would cure your re-order ills you must first be willing to get SYSTEM into your system, and that is one thing you can not buy in the drug store and take out of a bottle. It will mean, however, that you are actually waking up and are getting the right perspective of your business. As F. Kuhn puts it "if you would be a 1914 model, be a self-starter; don't wait for someone to crank you."

TRANSLATIONS AND ABSTRACTS

BY E. J. WALL, F. R. P. S.

Some New Drying Materials.

W. H. Smith stated before the Croydon Camera Club that he had found that ordinary pulpboard dried at 200 deg. F. was an excellent drying material, as in one day it absorbed 1% of moisture. Three pieces of board, 4¾x6½ inches, thoroughly dried and then wrapped round with a single thickness of waxed paper, leaving the ends open absorbed about 1/10 grain of water per hour from the air. Blotting paper and oatmeal were also excellent driers, the latter dried at 350 deg. F., absorbing 9% of its original weight of moisture in seven days.—*B. J.*, 1914, *p.* 254.

A New Rontgen Ray Tube.

W. D. Coolidge has introduced a new X-ray tube in which the cathode consists of a tungsten filament, which on being heated throws electrons across the space between the cathode and anode. The exhaustion of the tube is 1000 times greater than the present tubes and the energy is so great that it can produce an X-ray burn two inches deep in six minutes. The intensity and penetration are, however, completely under the control of the operator, these being determined by the voltage across the terminals. There is no local heating and no fluorescence of the glass, and exact duplication of radiographs is possible.—*Crouse-Irving Bulletin*, 1914, *p.* 171.

Largajolli's Process.

For some time indefinite statements have appeared in the German papers as to this process, and now Fritz Largajolli describes it in full. It consists of the use of a highly sensitive negative emulsion, coated on baryta paper or linen, with a backing of some non-actinic color, so that it can be used for roll films or film packs, etc. The sensitive surface is absolutely free from halation, gives better color rendering because the rays in passing through the yellow emulsion are colored yellow and reflected back on to the sensitive salt. This reflection means that the sensitive emulsion is exposed twice, once from the front and once from the back, consequently shorter exposures are possible. It is 50% cheaper than glass plates and correspondingly cheaper than films. It has also 23 other advantages, which we need not recapitulate. To print from it, it is only necessary to copy by reflected light in a special apparatus, devised by the inventor. Any possible distortion of the support is obviated by copying it on to the same kind of support only cut in the opposite direction of the web.—*Phot. Korr.*, 1914, *p.* 65.

One of the advantages claimed for this process is that it will replace celluloid film for motion-picture work. Imagine copying in a camera by reflected light 5,000 feet of positive prints on paper in order to make a single positive film and doing this say 100 times. Obviously the inventor does not consider time as worth money—possibly it is not in Meran where he lives. The whole thing is "flapdoodle—food for fools."

Irregularities in Development.

Under the above title H. Seeman describes a series of experiments dealing with the distribution of density under certain conditions of development, which boiled down to their ultimate result lead to the inevitable conclusion that, except under certain conditions, tank development is the last process that a careful

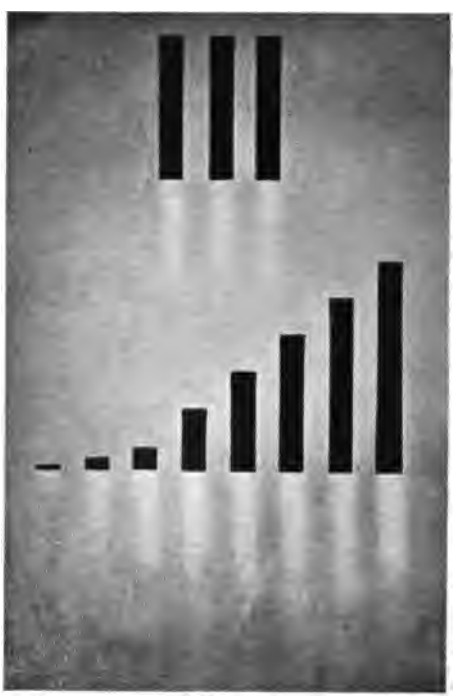


FIG. I.

FIG. II.

worker should adopt. Apertures were cut in a definite ratio in opaque card and placed in front of a plate, the exposure being for a given time. Development was carried out in an upright grooved tank for half an hour with glycin developing and the resulting negatives carefully measured. With regard to the measurements they need not be given, it is sufficient to reproduce two of his results, which really speak for themselves. Figs. 1 and 2 are very striking and prove most conclusively the extraordinary results obtainable by this method of development.

The white halos and streaks from the exposed patches are due to the slow diffusion of the alkaline bromide formed during development in the gelatine and thus retarding development. The obvious remedy is not to use tank development, or if it is used to repeatedly rock the tank.—*Veit. f. Wissent. Phot.*, 1914, *p.* 333.

This is not the first time that this phenomenon has been noted, but it is the first time that photometric measurements have been made. Herr Seeman gives other examples of somewhat similar import, which do not lend themselves readily to reproduction. Obviously if this takes place in tank development it would also occur in dish development, therefore one should always rock the dish well. Naturally the objections to tank development do not apply to the Kodak tank method, in which the film is always kept on the move.

Combined Sulphinol Developers.

Herget recommends the use of sulphinol in conjunction with other developing agents for obtaining warm tones on development papers.

Metol	5 g	35 grains
Sulphinol	10 "	70 "
Sodium sulphite anhyd.	25 "	175 "
Sodium carbonate anhyd.	50 "	350 "
Water to	1000 ccs	16 fld. ozs.

Dissolve in the above order. The solution is a deep purplish brown but the prints are not stained at all. This gives a wonderful velvety brown tone; development is complete in from 1 to 1½ minutes. Replacing the metol with edinol gives a greyish-brown, and using paramidophenol instead gives a warm black with a greenish tinge.—*Wien Mitt.*, 1914, *p.* 79.

Sulphinol was introduced in 1910 and is a sulphonated compound of para-amido-para-oxydiphenylamine. When used with an alkaline carbonate it is a slow very clean acting developer, very sensitive to the action of bromide and lowering of temperature. By oxidation it is converted into an indophenolic dye, but as this is quite soluble in sulphite solution, it causes no stain. If used with a caustic alkali a rapid acting developer is formed, but neither gives a black image, as some of the oxidation production is deposited in situ with the silver, and the latter may be dissolved out leaving the stain image intact.

The Discoverer of the Sensitiveness of Silver Salts.

Eder in his famous Geschichte der Photographie ascribes the discovery of the light sensitiveness of silver salts, in the shape of the nitrate, to H. J. Schulze in 1727. Herr Fritz of Trieste, has found that William Homberg in 1694 actually made this discovery and quotes the following passage from the Histoire de l'Academie Royale des Sciences, Paris, 1733, tome II, p. 139: "Idem 4 die Septembris pyxidem ex ossibus bovinis factam exhibuit variis distinctam coloribus. Ossa aquae forti debilitatae, in qua argentum exsolutum fuerat, ante immersa, tum Soli exposita, atro colore infecta et tornata instar marmoris erant variegata."—*Photo-Revue*, 1914, *p.* 118.

A somewhat free translation of this passage is as follows: There was exhibited on the fourth day of September a small box, made of the bones of oxen, of various colors. The bones were first immersed in dilute aqua fortis in which silver had been dissolved, then exposed to the sun had become a dark color, and being turned (carved) the colors were variegated like marble.

Blue Fog.

Frequently when amidol is used for negative and positive plates a peculiar blue fog makes its appearance, which is a special form of dichroic fog. L. Balston states that bathing the plate in 0.001% solution of potassium per-

manganate, followed by a weak bath of sodium bisulphite lye, will at once remove this—*B. J.*, 1914, *p.* 334.

A New Plate.

Wratten & Wainwright in England have introduced a new plate, which according to A. E. Bawtree has some special properties. It is very slow, about 1 H. & D. or 1½ Watkins, with a very fine grain, it gives great density with clean shadows. The speed is about the same as a wet collodion plate, there is total absence of halation and it gives sharp clear lines or dots. The images obtained are apparently very thin and require mercurial intensification, which gives as much increase in density as the ordinary lead intensifier. The film is so thin that a negative may be fully developed, intensified, etc., and dried in about twenty minutes.

Bawtree suggests that positives may be made direct by developing in the usual way, rinsing, whorling till surface is dry and then placing film out in a printing frame with a piece of black paper in contact with the glass and exposing to about 6 inches of magnesium ribbon at a distance of one foot. The primary image is then dissolved with

Potassium bichromate	25 g	1 oz.
Water	12.5 "	½ "
Nitric acid	1000 ccs	40 "

After rinsing and rubbing with cotton the plate is redeveloped in

Amidol	5 g	50 gr.
Sodium sulphite anhyd.	12.5 "	½ oz.
Potass. bromide 10% sol.	25 ccs	1 "
Water to	1000 "	20 "

Development is slow, about 4 minutes at 70 deg. F. As soon as the white background begins to darken the plate is fixed.—*B. J.*, 1914, *p.* 320.

A plate of this character would be of inestimable value for all line and process work and it is to be hoped that it will be introduced on this side soon.

A New Color Phenomenon

N. S. Amstutz, Valparaiso

In the ordinary production of a spectrum one or several prisms or a diffraction grating is used. Both methods are important and their technical properties interesting.

Another method was discovered several years ago by the author, but so far as he knows has not hitherto been published. The following description should give other experimenters the opportunity to use this method for critical color investigations. The author also hopes that those who may be interested in the theoretical basis of the same will investigate it.

An important peculiarity of the method is in its simplicity as an ordinary machinist's micrometer and a suitable light source are all that is required for carrying it out. The micrometer must have measuring surfaces at right angles to the axis of the screw and they must be highly polished. With a poor polish the colors are not sufficiently brilliant. The ordinary divisions of the micrometer are sufficient to resolve the limits of the color series and with careful readings the limits of some of the color bands can be obtained. The distance of the micrometer surfaces can be accurately determined.

Obviously the phenomenon is due to the light rays reflected from the surfaces of the micrometer, the incident rays, which strike the edges of the surfaces nearest the light source include the angle a, which differs from b, which is the angle from the more distant end.

The Editor of the *Photographische Korrespondenz* says: Possibly we have here the interference of the direct incident rays with those reflected from the micrometer surfaces. In many repeated experiments the color bands began to appear with a separation of the surfaces of 0.0015 inches and they were most intense when the surfaces were only 0.001 ins. apart.

For a demonstration a 100-watt tungsten lamp can be used. The vertical filaments act like several slits. In use the lamp should be placed so that the filaments are parallel to the reflecting surfaces. If the micrometer is turned a little, round a line passing vertically through the middle of the space, other combinations of colors appear, but the mathematical investigations are then much more complicated than when the incident light rays are symmetrical with the micrometer surfaces.

In observing the phenomenon the eye must be brought quite close to the edge of the reflecting surface, whilst the micrometer is held with the left hand the screw can be gently turned with the right hand. This movement must be very little, as 0.001 inch only requires 1/25th of a complete revolution of the screw. Expressed in degrees this is 14.4, which is the number required for the resolution of the color bands between 0.001 and 0.0015 ins. separation of the surfaces, which correspond to 14.4 and 21.6 degrees. The approximate size of the angle is 7.2 deg. If the micrometer is held in a suitable clamp and a screen of large diameter, divided as to its periphery into degrees or into units of the distances of the micrometer surfaces, is affixed to the drum of the micrometer, a sufficient degree of accuracy will be attained. This can be still more increased by the use of a vernier and a small eyepiece. It is very interesting to see the overlapping spectra. At first only black and white stripes will appear, but as the micrometer surfaces approach one another these assume the colors.

If the conditions of the experiment are to be more accurately observed, it is advisable to insert an adjustable slit B between the light source and the micrometer. This slit should be as near the light as possible. The following diagrams will show the arrange-

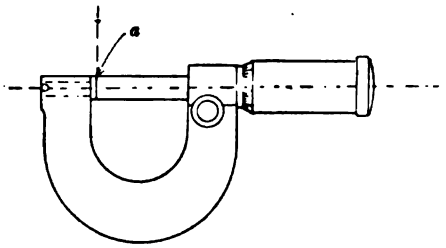


Fig. 1.

A-REFLECTING SURFACE

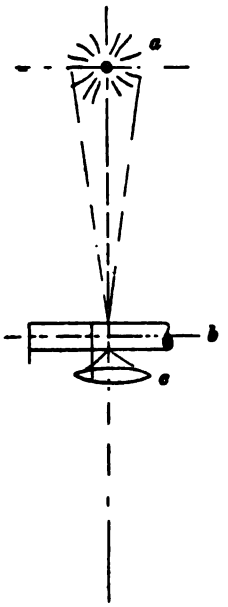


Fig. 3.

A-LIGHT SOURCE
B-MICROMETER
C-EYE

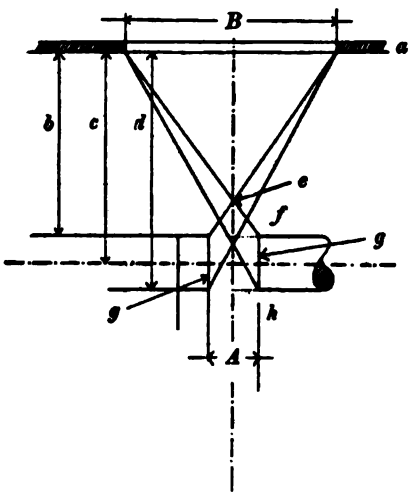


Fig. 2.

FIG. 2:
A-BREADTH OF LIGHT SOURCE
B-NEAREST } DISTANCE
C-MIDDLE } DISTANCE
D-FURTHEST } DISTANCE
E-ENTRANCE POINT OF RAYS
F-ANGLE A
GG-REFLECTING SURFACES
H-ANGLE B

ments. Fig. 1 represents an ordinary micrometer as used in the experiments. Fig. 2 shows the relative positions of the reflecting surfaces, the slit and the striking of the surfaces by the light source, which in this case is assumed to be the breadth of the aperture B. Fig. 3 shows the position of the eye of the observer, the reflecting surfaces and the light source.—*Phot. Korr.*, 1914, *p.* 49.

I have tried this and find that the colors appear at 0.001, are most intense at 0.002 and are visible up to 0.006 inches. Then if instead of looking directly at the light source one looks at one of the surfaces, with the light slightly to one side, the spectra can be distinctly seen up to 0.01 inch. Using the sun the colors are very brilliant although my micrometer is a very old one with somewhat tarnished surfaces. It is also possible to see the spectra using an eyepiece of ordinary magnifying glass, and this relieves the eyestrain a little; it ought, therefore, to be possible to photograph the same. It seems feasible to suggest that one might readily make a very cheap and effective interferometer on these lines, for one might easily cement temporarily small micro-cover glasses, silvered on their surfaces, to the micrometer jaws, or two narrow strips of highly polished metal, thus lengthening the reflecting surfaces and obtaining greater interference.—*E. J. W.*

EDITOR'S TABLE

The Art Side.

WHY is it that so many people of means neglect to patronize their home photographer, but instead have all or most of their portraits made, at much higher prices, when they are visiting some large city? Perhaps they get no better work than their local artist would give them. Yet, on the other hand in some way they do receive more for their money—not in quality of materials used, instruments, paper, plates, or work in the dark-room or printing-room. On the technical side the rural photographer, even, is often just as well equipped as the swellest city studio. Where, then, is the difference? *When* there is a difference in favor of the city artist (which is not always the case, however,) it will invariably be found on the side of *art*—what goes to make an interesting picture. Now this is not, as some may imagine, an affair of backgrounds, rugs, "accessories" or even of light—for in the matter of light the village studio often has the advantage of city establishments. It is simply a question of understanding how to pose, drape, and light a sitter in the most artistic way. Unless one is an exceptional genius this cannot be learned alone. All the celebrated photographers yearly attend scores of exhibitions where the world's masterpieces of art are displayed, and many of them also are students at great art schools. The town and village photographer can avail himself of almost equal advantages at perhaps one-hundredth part the cost and no loss of time, by studying closely the finest examples of the notable American photographers. Such work as that of John H. Garo is the highest achievement and sets a standard to emulate.

We wish to see our weaker workers brought up to the level of the strongest. On the technical side there is already universal excellence. If professional portrait photography is to stand in this age of rapid advancement, it must bring the art side up abreast with its scientific achievements.

Holiday Work Near Water.

EXCEPT only those whose residence is near the sea or some great water, everyone endeavors to spend holiday on the edge of the water. And the camera is the usual accompaniment to the shore, where plates are exposed to be developed at leisure after the holidays. Unfortunately, seascapes, or waterscapes, introduce us to a new class of conditions, and past experience may not prove a sufficient guide, the result being, too frequently, disappointment when the plates are developed. In a general sense we all believe that light is more intense on the seashore; when the day is really clear the brilliancy is almost painful. And here comes one of the fallacies. The light is so bright when the sun shines directly on to the water that we can scarcely imagine such a thing as under-exposure. We, therefore, use small stop and a quick shutter, and, sure enough, we get our lights. But we have forgotten our shadows, and the are solidly black. The whole key of the real scene is light and airiness, and the

shadows are lost; but in the print their unwelcome insistence suggests that the print might more easily be turned into a sombre art effort with some such title as "storm brewing." The remedy for what is really under-exposure is a longer exposure, using an orthochromatic plate or a color screen, or both, to keep the glare from overpowering everything.

It is said by practical seaside workers that the exposure on a cloudy day should be less than on a day of clear sun. This sounds absurd, but there is sense in it if a cloudy day is not understood to be a heavily clouded or dull day. If the sun is shining on the sea, its light may be reflected from the sea to the under side of the cloud, and the cloud then becomes practically a softener and diffuser of this light, similar to the reflector used in a studio. This diffusing or softening of the light is the key to the paradox, for our shadows are lightening, and if we follow the good old rule of exposing for them, our exposure is reduced.

To those who go in for photographing much expanse of water there are woful disappointments unless a little calculation is made. The large steamboat swinging at anchor looks so very impressive and bulky that, unless we note her carefully on the ground-glass, the result may look more like a gray grasshopper than a massive boat, owing to its appearing about one-third of an inch in length on the plate. It is a good plan to have two lines showing the angle included by the lens marked on top of the camera. A glance will show the proportion occupied by the object.

The Business Side.

THE professional worker, plodding along under the light of a studio which has served his purpose for many years with nothing to broaden his vision, is apt, unconsciously, to fall into a rut. His work will not unlikely assume a monotonous style with little to relieve it or mark it as being different from that of a year or more before. This tendency is not peculiar to photography. It exists in every walk of life and is the natural and logical sequence of living constantly among the same surroundings without changes and breaks in the routine of every-day life to broaden the vision. It is a tendency, however, that is to be deplored, whether in photography or elsewhere, and the man who can separate himself from his every-day surroundings, if not bodily, at least mentally, when occasion offers is a fortunate individual. An early walk into fields or on the shore will oftentimes set the key for the whole day's work, and, as many of our most successful men can bear witness, a brief half-hour thus spent will oftentimes provide the inspiration for some effort in the studio that in later years stands out as one of the masterpieces of its handiwork.

A visit to the studio of some other man, and a chat over the conditions of trade, some new development in the working tools of the craft or mere interchange of good-fellowship, from time to time is well worth a trial by any man who feels himself hemmed in and compassed about by the monotonous routine of his studio work.

Better than either of these, however, is the annual visit to the Convention, and the interchange of thought and experience that follows such a break. Without some such means as these the vision narrows into smaller limits year by year, and the worker views his profession only from a single point. He fails to realize the variety of aspects that photography takes on when seen from the broader plane of the all-around outside man, and failing to realize this variety, he misses many opportunities for extending his field of usefulness and profit. Whether the worker be actuated by the instinct which leads him to affect the æsthetic in photography, whether the artistic is the one end to which he aims, or whether his goal be the commercial side or the pictorial quality of photography, it matters not, so long as he devotes his best energies to the development of his chosen subject. But in whatever field he labors there is one aspect of photography which stands preeminent among them all. Without it success in any field may not reasonably be expected. This element is the business element, and it is one which is to-day receiving more attention at the hands of the thinking photographer than any and all the rest put together.

It is only by the development of the business end of the studio that its ultimate success or even its prolonged continuance may be looked for. In every other field of work may be seen a demonstration of the "survival of the fittest," and in photography, too, competition and the increasing application of business methods to the conduct of the studio are becoming more and more apparent. It therefore behooves every progressive studio to give care-

ful consideration to every change of conditions.

Bright men and women are coming into the profession from the ranks of the amateur and from the business colleges of the country. They are bringing with them business ideas and methods with which it has never before been familiar, and the studio which fails to recognize this fact is not unlikely to rudely awakened to it in the near future.

The time seems to have arrived when the need of business methods in the average photographic studio claims attention. The photographer who for years has been content with working out his own salvation is now beginning to cast about him for a partner or assistant who can help him on the business end of his studio work. He may have been fairly successful all these years, but his bank account, if he has one, has not increased in proportion to his expenses of doing business. Many of us realize that we are capable of making better negatives and prints than ever before, and of giving to our patrons work that is in every particular vastly superior to that of former years.

Our patrons appreciate this improved work, and it would be hard indeed to palm off upon them to-day prints which a few years ago gave perfect satisfaction. Still, the output of the studio does not materially increase, nor do the profits rise to anything like their proper proportion of the gross receipts. There is a reason for this discrepancy, and it should be carefully sought and located wherever such conditions are found to exist.

This aspect of the question is a somewhat new one to the average man, and he wonders where he may better his condition. That many of us can do so we believe to be a fact, and that some of us are doing so is evidenced by the business combinations which include a good photographer and a good business man. It is an encouraging sign of the times when the studio which has been doing business on the old lines suddenly wakes up, takes in a bright, active business partner, renovates its walls and fittings, and sets out in the business world with the avowed intention of obtaining its own full share of all the business that can be created in its locality, and of doing it in a modern up-to-date businesslike way. There should be room in every city or town of any considerable size for such a combination of business acumen and technical skill as this. Why do not more photographers see the possibility of profit in such an arrangement? The question is one that has often presented itself, and one which we believe is beginning to find a solution and profitable answer.

McClure's for April contains an article by Cleveland Moffett which is illustrated with a series of remarkable photographs taken with the fastest camera in the world. The article says: "The swiftest thing that the human race has ever put into motion is the steel projectile of a twelve-inch gun. No human eye can follow its flight. Released at a pressure of 40,000 pounds to the square inch—in a heat at which diamonds melt and carbon boils—it hurls through the air at a rate of 25 miles a minute, and reaches the mark ahead of its own sound. For years a young officer of the Coast Artillery has been trying to devise a camera so credibly swift that it will record every stage of this lightning flight from the gun-barrel to the target. At last he has succeeded. His photographs—some of them taken one hundred thousands of a second apart—have revealed remarkable and unsuspected facts to the military world. The story of his invention has never been told."

Capt. Francis J. Behr, Coast Artillery, is the officer referred to by Mr Moffett. The photographs show projectiles traveling at the rate of 900 miles an hour, emerging from a "gas ring," coming out of a smoke cone, and among others, a submarine mine blowing up a target. Captain Behr was an enlisted man in the Twelfth Infantry for three years before being appointed a second lieutenant in the Coast Artillery in 1901.

THE WOMEN'S FEDERATION OF THE PHOTOGRAPHERS ASSOCIATION OF AMERICA

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ART AND EATING AT THE CONVENTION.

To meet an uncomfortable situation squarely, and to adjust conditions so that the untoward situation becomes a real blessing—not in disguise, but in fact, is to demonstrate "social efficiency."

It belongs to the Women's Federation to have been able to meet just such a situation that arises in the coming Atlanta Convention and to wrest from it a benefit to the whole Convention and a financial result to the Federation.

The distance of the Auditorium from the hotels and boarding places, added to the heat of a southern June midday sun, makes the problem of the midday lunch, during Convention week, one of vital importance to the successful result of the Convention.

Intent, not only upon adding the Art feature to the Convention program, but to lend a helping hand in all ways, The Executive Board of the Federation grasped the significance of the problem presented, in the loss of time required to go and come, and the physical discomfort attending the exertion, in its bearing upon the punctual attendance and sustained interest in all the sessions of the Convention, so rich in promise of usefulness and help.

They have met the problem by utilizing the well equipped Auditorium kitchen and have assumed the responsibility for the midday luncheon. They have placed the details under the supervision of Atlanta's well known "real Southern Cook," Willie Daniels.

Time is saved for rest and recreation, physical discomfort averted, and a per cent of the proceeds will go to swell the Federation treasury.

To a Southerner, the thought of such a lunch as follows, (as a typical menu,) will add a zest to Convention days, and to the Northerner, a new gustatory experience, when Willie Daniels serves you, in the best Southern style:

Broiled or Fried Chicken
(Cream Gravy)
Rice Fresh Green Peas Okra Beets
Fresh Tomatoes and Lettuce
Real Fresh Peach Cobbler Pie
Southern Corn Bread Beaten Biscuit
Hot Rolls
Iced Tea and Coffee

for fifty cents, (four bits in the South,) in the cool and airy dining room of Atlanta's Auditorium.

PEARL GRACE LOEHR,
Pres. Women's Federation.

FEDERATION NOTES.

Come! meet us in the home of Brer Rabbit and Uncle Remus—Dixie Land.

Such was the message sent out on June 1st by the Women's Federation on a souvenir post card of Hotel Ansley, Headquarters for the P. A. of A. at Atlanta.

LIBRARY EXHIBIT.

Brer Rabbit and Uncle Remus will greet the visiting photographers from the walls of the children's room and from the wonderful tiles of the fireplace of the Atlanta Carnegie Public Library, after which you can wander into the exhibit room and view a most interesting collection of twenty-five photographs made by members of the Photographers' Association of America, which were placed on exhibit May 15th by Miss Katherine Wootten, Librarian. That this exhibit has been of great interest is shown by the following clipping from the Atlanta *American*:

"EARLY MORNING," BY JOHN H. GARO, BOSTON, MASS.

"PHOTOGRAPHERS OF NOTE EXHIBIT PICTURES HERE.

Display is Open to Inspection All This Week at the Carnegie Library.

Photographs made by the most noted photographers of the United States will be on display at the Carnegie Library this week.

The exhibit was sent by the Women's Federation of the Photographers' Association of America, which will hold its convention in Atlanta, June 15-20, and was offered by Pearl Grace Loehr, president of the Federation, during a recent visit to Atlanta. It includes photographs by Alice Boughton of New York, Reineke of Kansas City, Gerhard Sisters of St. Louis, Bessie Meiser of Richmond, Ind., Sara F. T. Price of Philadelphia, Knaffle of Knoxville, Jane Dudley of Massachusetts, Williams of Evansville, Ind., Towles Studio of Washington, Helmar Lerski of Milwaukee, and many others.

It is expected that the exhibit will be of interest to many Atlantans who are interested in high-class photography, and Miss Katherine Wootten, librarian, has issued a special invitation to local photographers to inspect the display. Many of the studies are of child life, with several interesting pictures of artistic groups, in which natural poses are shown."

The interest of women in all things related to women, was shown by the Federation in sending out to the Women's Clubs and to the schools of Atlanta especially interesting invitations on dark brown Japanese paper, printed in red ink, which read as follows:

> THE FEDERATION OF WOMEN PHOTOGRAPHERS OF AMERICA INVITE THE MEMBERS OF THE GRANDMOTHERS' CLUB TO BE PRESENT AT THEIR ANNUAL EXHIBITION OF PHOTOGRAPHS ON FRIDAY, JUNE NINETEENTH, NINETEEN HUNDRED AND FOURTEEN, FROM TWO TO SIX AT THE AUDITORIUM, ATLANTA, GEORGIA.

REST ROOM AT THE AUDITORIUM.

The rest room in the Auditorium will be in charge of Mrs. Bayard Wootten of New Bern, North Carolina, who will see that Southern hospitality is extended to one and all. In ending we can only repeat the invitation, "Come! Meet us in the home of Brer Rabbit and Uncle Remus—Dixie Land!"

NOTES AND NEWS

TESTIMONIAL DINNER TO E. B. CORE, ON THE OCCASION OF HIS RETIREMENT FROM BUSINESS, AFTER FIFTY YEARS IN PHOTOGRAPHY, AT THE WALDORF-ASTORIA, APRIL 30TH, 1914.

THE retirement from the profession of E. B. Core called forth expressions of admiration and affection at a dinner in the Astor Gallery of the Waldorf-Astoria, New York City, on Thursday evening, April 30th.

E. B. CORE
BY PIRIE MACDONALD, N. Y.

This occasion brought together some forty friends prominent in the photographic fraternity who came to pay tribute from all parts of the country. B. J. Falk acted as toastmaster, and short talks were made by A. F. Bradley, Pirie MacDonald, "Papa" Cramer, Theodore Marceau, George W. Harris and others. Many telegrams of good wishes were received from prominent photographers who were not able to be present. The keynote of the evening was sincerity of regard.

"Pop" Core has won his way into the front rank of professional photography by adherence to a fixed purpose of hard work, combined with intelligence and personal charm. He is one of the few photographers of our time who is now reaping the benefit of a half century of untiring effort and a high standard of accomplishment. This fitting recognition, therefore, by members high in the fraternity, not only expresses appreciation of individual achievement, but reminds us all, in this busy land, that the profession of photography can be raised to a high level and be made a real success, which after all is worth while.

"Pop" Core will continue to be held warm in the hearts of his friends, and WILSON'S joins with them in wishing him many years of peace, health and happiness.

KEEPING YOUR PROMISES.

WHAT about the promises you make customers?

This isn't mere curiosity; it's just a question you might ask yourself. If you can answer that you don't make promises unless you are sure you can fulfill them—why, it hasn't the least bit of impertinence in it.

The ancient saying that "promises, like pie crusts, were made to be broken," has been retired on an old-age pension. The man or the firm that attempts to do business with hot air doesn't get anywhere. And unfilled promises are the worst kind of superheated atmosphere.

We are all guilty, at times, of longing to push truth back into her well, and promise what we must know—back in our heads—that we can not quite live up to.

But as long as you fight this unworthy desire and have the mental grit and the psychological stamina to say you will deliver the job not a day sooner than you know you can, you're well on your way to earning a reputation that is worth money.

If you get in the habit of delivering the goods on time, you won't have to deliver excuses.

Every promise kept, makes the next one easier to keep.

JOHN H. GARO'S PHOTOGRAPHS

EXHIBITION OF HIS WORK AT GALLERY OF THE BOSTON ART CLUB.

An exhibition of photographs by John H. Garo was opened, May 11th, in the gallery of the Boston Art Club. As Mr. Garo is an artist, there is no question about his prints being

works of art, since his medium is no more mechanical than another. It all depends upon the man behind the camera. About eighty of his recent works are shown, most of them in black frames; they embrace many portraits, a few groups, some landscapes, and even one or two pieces of still-life. Garo is a painter as well as a photographer, and he takes the liberty of manipulating his plates as he pleases, sometimes making several superimposed printings to get a desired effect. This may or may not be regarded as legitimate by photographic purists; to us the proof of the pudding is the eating. Garo succeeds in the making of a pictorial effect that has style and charm, and his success is a sufficient vindication of his means.

Photographers' Association of New England

The next Convention will be held October 13-14-15, 1914, in
Copley Hall, Boston, Mass.

Special Notice.

The executive board of the P. A. of N. E. for 1914 are desirous of increasing the membership of the association, and to that end propose to offer an amendment to the Constitution, viz., Article III, Sec. I, reads:

"Active members who are proprietors of studios in New England and the Maritime Provinces, shall be required to pay an initiation fee of two dollars, and one year's dues (two dollars), in advance to the secretary.

"Employees shall pay annual dues of one dollar, and no initiation fee shall be required."

The amendment will read:

"Proprietors of studios in New England and the Maritime Provinces are eligible, and will be admitted to membership by paying one dollar annually, and when attending the convention an additional fee of one dollar at the treasurer's office before entering the hall.

"Employees shall pay annual dues of one dollar only, which entitles them to all the privileges of an active member."

A printed card showing certified membership (suitable to frame and display in the studio) will be issued yearly upon the payment of annual dues.

A Special Meeting to act upon the above amendment will be held at the Copley Square Hotel on Tuesday, May 12th, 1914, at 7:30 P. M. Twenty members constitute a quorum.

Per order of J. Chester Bushong, Pres.
By Geo. H. Hastings, Sec.,
Newtonville, Mass.

May 6th, 1914

One Screen for All Purposes

Color-correct photography, by the use of pan-chromatic plates and a deep screen, is gradually making its way amongst more advanced workers. Modern discoveries have contributed very largely to this end by providing a plate and screen which, when used together, do not necessitate any prohibitive increase in exposure. Twenty or even forty times the normal was once requisite; now four or five times will suffice. The photographer who adopts such a combination finds that it grows on him. At first he may only use it for certain special purposes, but he soon tends to use it for all. He learns that the idea that for one type of subject one screen is needed and another for another is a fallacy. If he uses the ordinary orthochromatic, he may vary his screens to advantage; but when he adopts the color-correct method in its entirety, there is no need to change about. Whether he is photographing a spring landscape or an oil painting, a portrait or a vase of flowers, he may be quite confident that his combination of plate and screen will give him what his eye sees, as far as a faithful rendering in monochrome of the intensities of light and shade in the original is concerned.—*Photography and Focus.*

Ansco Company's $5,000 Loveliest Women Contest Opens Auspiciously

Ansco Company's $5,000 America's Loveliest Women Contest opened May first, and judging from the great influx of inquiries addressed to the home office and the enormous quantity of entry blanks demanded by Ansco dealers for distribution to prospective entrants, it has been most enthusiastically received in all parts of the United States and Canada.

That this competition is the greatest competition in photography ever conceived, is the consensus of opinion of camera users and devotees of photographic art, not only here in America but abroad as well, and it is with regret that Ansco Company has already been compelled to decline entries from photographers in England and on the continent of Europe.

There are several reasons why the success of the Loveliest Women Contest will be extraordinary. First, the idea of the contest makes a universal appeal—everyone knows a lovely woman, and is anxious to have her beauty perpetuated. Here is the opportunity.

The cash prizes, ranging from $500 to $50 for a single photograph—$5,000 in all, are an attraction, which combined with the honor and glory of having your work displayed before the world at one of the greatest expositions of history, is a goad to ambition and achievement.

Then, too, an exceptional opportunity is given to all professional photographers who desire to make the contest count in their business, through the electrotype service offered by Ansco Company. Three artistic, appealing, business-bringing advertisements have been prepared for this month, and electrotypes will be sent free—one to the first three photographers in each city who will write for them and promise to use them in local newspaper advertising.

Other series will follow, so that each photographer will have an opportunity to run the cuts some time during the period of the contest, if he does not succeed in obtaining one of the first three.

Ansco Company will leave no stone unturned to make the Loveliest Women contest attractive to all. Other features will be announced from month to month as the contest progresses. If you have not secured your entry blank—if you have not begun to lay plans as to how you will make the most of the opportunities the contest affords, see your *Ansco* dealer right away, or write *Ansco Company,* Binghamton, N. Y., for full details.

PHOTO-CHEMISTRY, BY S. E. SHEPPARD, D. Sc., PUBLISHED BY LONGMANS, GREEN & CO. PRICE, $3.20.

To the photographer wishing to learn something of the chemistry of photography in its restricted sense, this book will be a great disappointment; he will not learn from it the chemical processes of development, intensification, printing, etc. The author has chosen the much wider field that comprises generally the chemical changes produced by light.

Let me add at the outset that the book is not easy reading, due in great part to the curious style that Dr. Sheppard adopts; his style is, in fact, moulded on that of some German writers, with the consequent result of an involvement of sentences, that at times actually obscures his meaning. Take, for instance, the following passage, p. 322:

"In consequence with this *dividuality* quite *specifically* superimposable on any aggregate of degrees i > I of *kinds* of dual or binary molecules, superimposable like a sort of *imperium in imperio* on the generic duality of chemical elements taken *en masse* which is the central and cardinal fact for the stoichiometric chemistry of crystallizable matter, *colloids* are never in static but in dynamic, fluctuating equipoise with the radiant energies of their circumambient medium. Each fluctuation of this initiates an impression, originally a pure strain, on the colloid which tends to develop and fix it, so as to say, crystallographically, corresponding to a relaxation of the supertension of its intrinsic internal dynamic incompatibility, but can usually only do so at the most transiently, partially, so antagonistic, mutually interfering, on an average, are the fluctuations of the ambient medium." The latter part of this is typically Anglicised German. The author also is far too fond of italics and the interlarding of foreign words and phrases. Having thus found fault with the author as regards what are but minor details, let me add that the book is singularly free from typographical errors, and enriched with a wealth of references, that is quite unusual in English books, a good index of authors and subjects.

After a brief historical sketch of the subject generally the book deals with the measurement of light quantities, inclusive of a brief but very clear statement of photometry, light standards and photometers, and incidentally here he introduces an extremely happy term, "the object field," which, as he states, is a convenient phrase for such circumlocutions as "the fields of light to be compared." The energetics of radiation, or the emission and absorption of light, carries one on insensibly into a consideration of the actual sources themselves and their emissive powers. This is one of the most valuable parts of the work, comprising as it does one of the clearest expositions of the subject as a whole. In the next chapter dealing with the statics and kinetics of photo-chemical change, we enter into what may be called that section which is described by the title of the book. From this we are lead on to the dynamics of photo-chemical changes and to special photo-chemistry, and here we have a very comprehensive view of the action of light, including that on silver salts, though the latter is treated purely from the academic point of view. The chapter on radiant matter and photo-chemical change is an excellent presentment of the subject, as is also that on the genesis of light in chemical change, which deals with chemiluminescence. The final chapter deals with the photolysis of dye stuffs and the photosynthesis of foodstuffs by the chlorophyll of plants.

Dr. Sheppard's work evinces an extreme painstaking analysis and a wide acquaintance with the literature of his subject. There is at the same time discreet ignoring of detail, which makes for a better comprehensive grasp of the subject as a whole. It is the first English work that comprehensively reviews a very difficult subject, and it is worthy to take its place amongst those of Schaum, Eder, Plotnikow, and other German writers, who have made this subject their profound study.—*E. J. W.*

A NEW AND VALUABLE ADDITION TO THE RETOUCHER'S OUTFIT.

THE Northern Photo Supply Company, Minneapolis, Minn., have just placed on the market a new and valuable little article which will prove a boon to the Retoucher's Outfit. It enables the user to reduce high lights or contrasty effects from the Negative in a most simple and easy manner. Is just the thing for working in Backgrounds, shading and etching Negatives as well as working in Draperies, etc. It will do the work neat and clean and superior to any other method. Is made of spun glass and aluminum and so simple that anyone can use it.

The NORTHERN HILITE REDUCER is a great advancement in the Retoucher's Art, also ideal for removing defects from Enlargements. Every Photographer and Retoucher should possess one of these.

We understand the retail price will be 15c. and that the above concern will allow a liberal discount when sold in quantities to Dealers.

It is not always advisable to make your enlargements on the same surface Bromide Paper. We would suggest that you try the Montauk Bromide; it has nine grades and surfaces, including heavy weight and buff, a surface suitable for any picture you can imagine. The firm of G. Gennert, 24 & 26 E. 13th St., New York, 320 S. Wabash Ave., Chicago, Ill., and 682 Mission St., San Francisco, Cal., will be pleased to send free samples of Montauk Bromide to the readers of this magazine upon request.

The Triple Projection Process of Color Photography.

(A communication from the Research Laboratory, Eastman Kodak Company.)

Of the many methods of producing photographs in natural colors the oldest is that which depends upon the taking of three negatives through color filters of the three primary colors and then the projecting of positives made from these three negatives through color filters of the same hue as those through which they were taken.

This was the process used by Clerk Maxwell in his famous lecture before the Royal Institution in 1861, when he projected on a screen three photographs of a colored ribbon by means of three lanterns before which were three glass troughs containing respectively sulphocyanide of iron, chloride of copper, and ammoniated copper. When the three photographs which had been taken through the three colored solutions were introduced into the lanterns and the images superposed, a color image was seen which, "if red and green images had been as fully photographed as the blue, would have been a truly colored image of the ribbon." Since Clerk Maxwell many workers on color photography have used this method. Ducos du Hauron in 1869 described it as a "direct" method, but fell into the error of using red, yellow, and blue as the primary colors.

But the man who came nearest to producing a really practical process of color photography by the three-color projection process was F. E. Ives, who took the three negatives side by side on a single plate which was shifted together with the color filters, behind an opening, the positives being afterwards projected by means of a triple lantern using one source of light, the beam from which was split up and passed through the three lenses by means of bundles of glass plates which reflected part of the light and transmitted the rest. Ives also invented the Kromskop, in which the three positives could be viewed superposed, each one being illuminated by light which has passed through the proper filter.

The latest application of the triple projection process is the Gaumont process of color cinematography, in which three small cinematograph pictures are taken one over the other, through three lenses, the film being moved on the extent of the three pictures after each exposure, that is two and a quarter times as much as for the ordinary cinematograph negative.

The pictures are taken at the ordinary rate of 14 to 16 per second, by the unit filter itself. Thus in the Autochrome plate the red grains are of an orange-red hue, and the plate cannot give any red stronger than this; similarly, if in the projection process an orange red projection filter is used, no red stronger in hue than the filter can be obtained.

Turning to the practical point of the exposure required, it might seem that the screen-plate and triple projection methods were in the same position as regards this, but screen-plates, composed of small units, require very fine-grained emulsions to give sufficiently sharp definition to prevent the image of the small units spreading into each other, and these fine-grained emulsions are necessarily slow, each picture being composed of the three negatives. Projection is accomplished by means of a very ingenious triple lens, each positive being projected through its own lens and registration effected by moving two of the lenses very slightly up and down, sideways, and in and out. Since the triple projection process is very closely allied to the screen-plate process, such as the Autochrome, it is interesting to compare the condition which the two processes require for success. In the first place the triple projection process has an advantage over the screen-plates in that it is possible to use different filters for projection to those through which the negatives were taken. Theoretically this is a considerable advantage, because wide-banded filters of fairly light color are best for taking the negatives, while very narrow spectral regions should be best for projection. Practically, however, the use of narrow projecting filters entails too great a loss of light, and the projecting filters differ from the taking filters only so much as is of advantage for fulfilling the two critical conditions necessary for color rendering. These two critical conditions in triple projection are: (1) A white or grey must be reproduced by the same depth of deposit in all three negatives. We may call this the "ratio" condition. (2) The projecting filters must give a light on the screen when no picture is interposed which appears white. In screen-plate processes this second condition means that the screen itself, without emulsion, must be neutral in color. This has been called the first black condition. Actually a screen-plate is usually neutral only in daylight, by artificial light it is generally tinted, but good results are obtained when projecting by arc-light.

The "ratio" condition in screen-plates means that greys, when photographed, must appear grey, both before and after reversal. This has been called the "second black condition." This condition in triple projection must be accomplished by the exact adjustment of the taking filters to the emulsion, so that the three filters produce equal deposits. If the emulsion be less red-sensitive the green and blue filters must be darkened, and vice-versa. It is partly the difficulty of keeping right in this respect which has limited the use of the three-color processes, other than screen-plates, to a few ardent workers.

For both the screen-plate and the triple processes the strongest color which can be obtained is that which is represented so that even with a lens working at *f*/4.5 hand-camera exposures are practically impossible.

In the Gaumont process, on the other hand, exposures of only 1/30th second are regularly used, the emulsion being both very rapid and very color-sensitive. In projection also the triple projection method utilizes about one-fourth of the total light, while even the best screen-plates cannot transmit more than about one-tenth.

The triple-projection method, therefore, while the oldest, must still be reckoned among the best of the color processes.—*C. E. Kenneth Mees, D. Sc.*

Snapshots by Lamplight.

Send a line to Allison & Hadaway for the new pamphlet of the A. & H. Brand of Marion & Co.'s (London) Record Plates. It contains quite a bit of meat and a number of letters from prominent men who have used them. The extraordinary speed of this new plate permits of snap-shots indoors and slow snap-shots under ordinary household illumination at night.

In addition to the speed quality of the plate, (500 H. & D.) the product is free from fog, will stand any amount of forcing and is of fine grain. Properly shielded from the light during the development and not having been over-exposed, the resulting negatives are brilliant and evenly balanced as to deposit. The development, however, must be carried to approximately 25% to 50% increased density.

The firm offers to send a trial dozen, postage prepaid, at the standard list price. This is the best way to obtain judgment.

For high grade lenses our readers will be interested to note that the W. J. Lafbury Co. of Chicago are now making their series IV special three glass type of lenses in 12-inch focus mounted in the compound shutters, also they are producing the same series in 14-inch focus, and the 16½-inch focus mounted in the narrels. The reception accorded these products has been truly remarkable. To the series III they have added an 8½-inch size, also a 12 and a 14-inch size. Their full catalogue and price list will be furnished on application.

According to the dictionary, an artisan is a mechanic, and an artist is an artisan. A photographer, if a good one, regards himself as an artist in his business, but he is also an artisan. All this came out in the case of a Brooklyn photographer charged by the Society for Sunday Observance with violating the law. Counsel for the society claimed that the law prohibited the prosecution of any "trade" on Sunday except in case of necessity. The magistrate did not think photography was a trade, for he found photographers classed as "artisans" in the dictionary. But a veteran photographer swore that photography is an art and not a trade, and the question is left for the magistrate to decide.

Uniformly Curved Trifocal Lens

Henry Bolde, of New York, assignor to the Meyrowitz Manufacturing Company, has patented a trifocal lens in which two minor lenses are seated respectively in the two faces of a major lens, both of the faces of the completed lens being of uniform curvature throughout.

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Just a little word of three letters, but oh, how big its meaning—T-R-Y.

I'll venture more young men fail to advance as rapidly as they feel they ought to, because they are afraid to tackle what appears to be a harder job, rather than because of their lack of knowledge.

I was talking to a man the other day—a splendid young fellow—and he said to me:

"The other day my brother-in-law came to me, and said if I would tackle a certain position (meaning a good one) he'd see that I got it.'"

I said, "Of course you took it," and when he said "No," I looked at him in utter astonishment.

To think that a capable man, a man who seemed possessed of more than ordinary ability would not tackle a better, a bigger proposition.

It's queer what different stuff different men are made of, isn't it? And it takes opportunity to show whether that stuff is the lacking "stuff" or the "stuff" that makes 'em do.

There's only one thing in the world that makes men, big men—that is, self-confidence.

Self-confidence that does not savor of conceit—there's a difference between the two. The one a big-man maker and the other a big-man destroyer. Get self-confidence, but beware of the thing lest it grow to conceit and be your ruin. Be self-confident through a thorough knowledge of your business, and when the bigger undertaking presents itself, tackle it.

Suppose you do fall down the first try. If you are made of the right sort of stuff, the first down will bring you back with renewed energy and determination.

Sometimes it takes a failure, sometimes a half-dozen, to make a man. Failure is no disgrace. Try again.

Try is a little word, but full of meaning when bigger things come again—try. It may mean failure—once, twice, a half-dozen times —but success ultimately.

Never say "can't," always "T-R-Y."

If you have the grouch habit, try the smile. It helps everything wonderfully.—*The Salt Shaker.*

ONE of the most enterprising photographic dealers in New York is Willoughby, whose catalogue we have just received. In looking through its pages we find a most complete stock of supplies offered at prices which are certainly attractive and should interest all who want the best goods for the smallest outlay.

The cover is of original design, the front showing the exterior of 810 Broadway and the back (which we reproduce) the interior, where everybody gets a square deal.

EVERY photographer realizes that changed conditions makes it imperative that a part of his work be made on an inexpensive paper. This is especially true in the amateur and commercial fields. Instanto, made by the Photo Products Co., of Chicago, may offer just the solution to this problem you are seeking and your attention is called to the ad in this issue. The features of Instanto especially appreciated are its pleasing printing speed, latitude and ease of manipulation. With the amateur and post-card season at hand, right now would be an excellent time to get acquainted with Instanto. As most of our readers know, the papers made by the Photo Products Company are not sold through dealers but only to the photographer direct. Don't forget to mention WILSON'S when you write.

A WHITE-HOUSE WEDDING

The original negative from which this reproduction was made was taken by Harris & Ewing, the famous photographers of Washington, D. C., with a Wollensak Velostigmat lens, Series II F:4.5.

CURRENT TOPICS IN LEADING PERIODICALS.

Changing the Color of Prints by Double Toning. May 6th *Bulletin.*

Dark-Margin Vignettes. May 1st *British Journal.*

Focal-Plane and High-Speed Shutter Testing. May *American Photography.*

How to Make Lantern Slides. February *Photo-Miniature.*

Mercuric-Iodine One Solution Intensifier. April 24th, *British Journal.*

On the Developing Power of Hydroquinone Substitution Compounds. May 1st, *British Journal.*

Printing Frames. April 24th, *British Journal.*

Phosphate of Soda and Gold for Toning P. O. P. May 6th, *Bulletin.*

Softening Device for Home Window Lighting. April *Camera.*

Utilizing Light-struck Plates for Transparency Plates, February, *Camera.*

Variations of Color in Sulphide-toned Bromide Prints, February 6th, *British Journal.*

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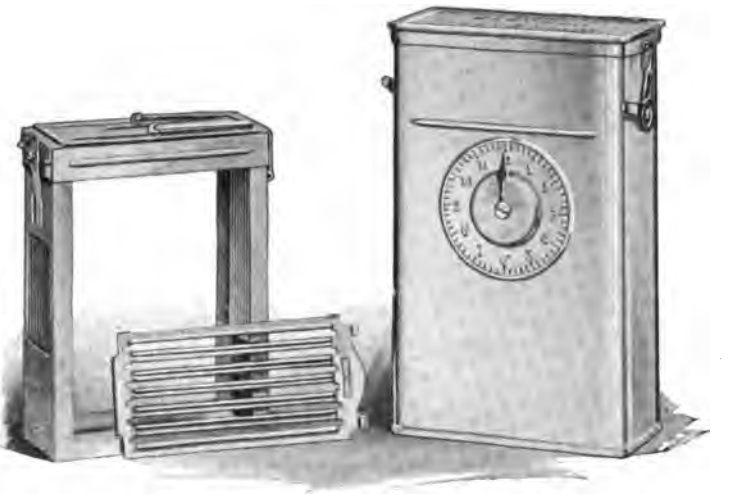

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THE NEXT PHOTOGRAPHIC TIMES

PRINT COMPETITION

ON account of the continued success of the Revived Print Competition, the Editorial Management of THE PHOTOGRAPHIC TIMES has decided to continue these pictorial contests.

The next contest will be closed on June 30th, 1914, so as to be announced in the August Number with reproductions of the prize winners and other notable pictures of the contest. The prizes and conditions will be the same as heretofore, as follows:

First Prize, $10.00 Second Prize, $5.00 Third Prize, $3.00

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CONDITIONS:

The competition is open freely to all who may desire to compete, without charge or consideration of any kind. The subject for this competition is an open one for Novices (those who have never taken any prizes in THE PHOTOGRAPHIC TIMES' competition).

Prints in any medium, mounted or unmounted, may be entered. As awards are, however, partly determined on possibilities of reproducing nicely, it is best to mount prints and use P. O. P., or developing paper with a glossy surface. Put the name and address on the back of each print.

Send particulars of conditions under which pictures were taken, separately by mail. Data required in this connection: light, length of exposure, hour of day, season and stop used. Also materials employed as plate, lens, developer, mount and method of printing.

NO PRINT WILL BE ELIGIBLE THAT HAS EVER APPEARED IN ANY OTHER AMERICAN PUBLICATION.

All prints become the property of this publication, to be used in THE PHOTOGRAPHIC TIMES, as required, to be reproduced either in our regular pages or criticism department; credit will, of course, be given, if so used; those not used will be distributed, pro rata, among the hospitals of New York, after a sufficient quantity has been accumulated.

We reserve the right to reject all prints not up to the usual standard required for reproduction in our magazine.

Foreign contestants should place only two photos in a package, otherwise they are subject to customs duties, and will not be accepted.

All prints should be addressed to "THE JUDGES OF THE PHOTOGRAPHIC TIMES PRIZE PRINT CONTEST, 135 West 14th Street, New York, N. Y.," and must be received not later than June 30th.

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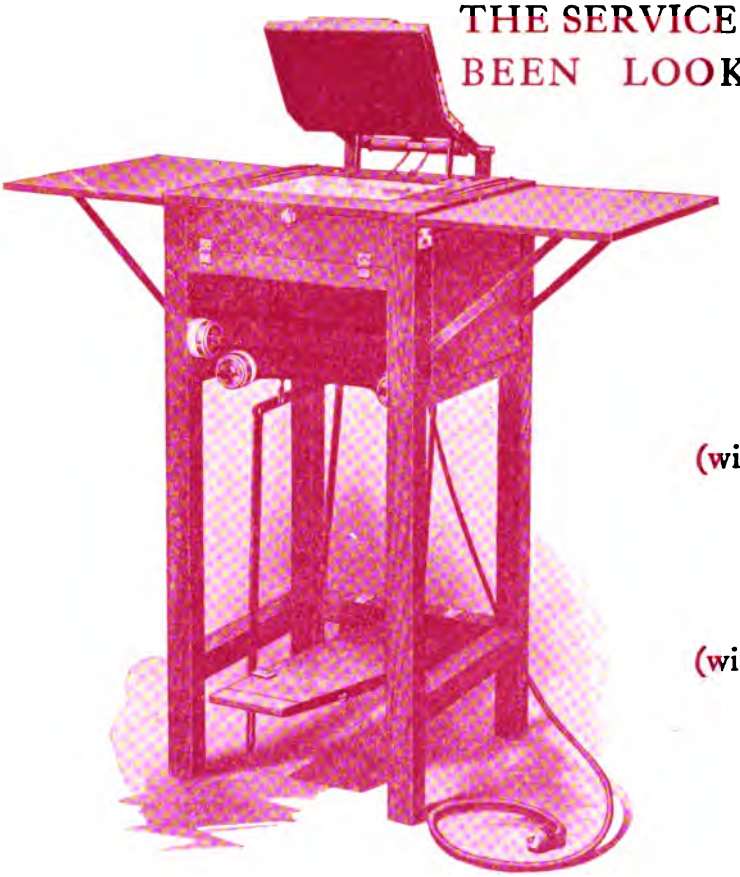

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1914 - 15

BY R. MORRIS WILLIAMS
EVANSVILLE, IND.

WILSON'S PHOTOGRAPHIC MAGAZINE

FOUNDED IN 1864 BY EDWARD L. WILSON

VOL. LI. JULY, 1914 No. 7

NOTABLE AMERICAN PHOTOGRAPHERS AND THEIR WORK

R. MORRIS WILLIAMS

IN the science of picturing the human countenance, R. Morris Williams is a master artist. He has one of the most perfectly equipped as well as the most artistic studios in this country and in the state of Indiana there is no comparison with any other studio in point of artistic arrangement.

The successful photographer must be a psychologist as well as an artist, and Williams is both. As an artist he is able ta handle draperies so skilfully that it is beautiful in composition. He is able to pose the subject so that every line is in harmony, every mass of light and shade in perfect balance, and is able to finish this picture so that it will be perfect in composition and perfect in quality, so that in looking at it you are charmed; but were this all his aim and end he would fall far short of producing a true portrait. The essential thing in this artist's work is that he succeeds in catching the personality of the sitter—be it man, woman or child. His work shows that he has that rare and wonderful power of properly interpreting the character—that subtle something which we call personality—and the environments that builded it.

"Daddy" Williams, as he is familiarly known in the fraternity, was born in Pardeeville, Wisconsin, and his experience in photography dates back to the old wet plate days. He has a fund of anecdotes touching on the difficulties of photography during the pioneer period. He has always followed photography but his first big venture was at Florence, Ala., where, in 1888, he opened the finest studio in the South, and for the next three years he made money until the boom broke. He then moved to Nashville, Tenn., where he was in business for seven years, and eventually landed in Evansville, Ind., buying out the old Stanton studio which he remodeled into one of the most beautiful galleries in the whole country—in fact it is one of the show places of Evansville.

But Williams's reputation is not merely local. It extends to the continents. When the German artist-photographers held a meeting in Berlin on the occasion of the semi-centennial anniversary of their association, Williams was one of

BY R. MORRIS WILLIAMS

four American photographers asked to exhibit his work. On two occasions at exhibits of his work before the Indiana Photographer's Association he has been awarded percents higher than ever before accorded a photographer in America.

Last year in an exhibit before the Tri-State Association he was awarded the diamond medal for perfection of work, and again at the Indiana convention carried off a rating in excess of any ever given any other photographer in the land, besides the distinction of winning the Wollensak cup.

The diamond medal hangs over a picture in the Williams art collection. It is in itself a work of art. A camera is embossed on the gold disc and a single diamond forms the lens. In all, he has received eight or nine honors in two years for perfection of work.

Probably his is the only studio in this country possessing a salon or art gallery of the work of famous artists. There is an immense room which is fitted up as an art gallery wherein are hung from one to six pictures contributed by the leading photographic workers of America and Europe. This is a permanent feature of the studio and the collection will be constantly added to. Nearly one hundred more artists have promised to send contributions of their work. These pictures are representative of the very best work of these famous artists and are placed where they may be viewed and compared to his own work. Does not this undertaking express, as nothing else possibly could, the confidence which Williams has in the quality of his own work—confidence in his ability to produce portraits for his patrons equal to any to be had in any city of the world?

BY R. MORRIS WILLIAMS

The studio is a fair insight into the artistic temperament of the man.

The entrance, while in good taste, gives no intimation of what is to be found on the second and third floors of the building. The first room entered is the reception room which is reached through broad

R. MORRIS WILLIAMS

French doors ornamented with art glass. Here is a room 45 x 20 feet and from the center a staircase gracefully winds its way to the studio on the next floor. Green, colonial yellow and old ivory with mahogany trimming form the color scheme in this room.

Chippendale furniture is used with here and there an elaborately carved piece done by Mr. Williams in his spare moments. One chair, a mass of intricate work, was made by him in six weeks. The electrical fixtures carry out the colonial scheme that is suggested at every turn in the reception room. Oriental rugs in warm-colored designs cover the floor and a soft green Wilton on the staircase affords an agreeable contrast.

To the right of the reception room is the art collection. On the walls are

GLIMPSES OF THE STUDIO

HALLWAY OF STUDIO

specimens of work done by the principal photographer-artists of Europe, America and Australia, mentioned above. It is interesting to note the varied styles preferred by the masters of the camera in Paris, London, Berlin, Vienna, Australia, as well as every part of the United States.

On the third floor will be found the dressing-rooms all of which will delight milady. It requires little exertion for her to ascertain whether her hair is properly dressed. In one room there is a chair fitted with glass in the back which, when used in connection with the mirror in the dressing table, gives an unobstructed view of the back of the head. In another room, in Queen Anne style, is a triple-mirrored dressing table with glasses that swing in to give the same convenient view of the rear of the head.

Across the hall is the studio or light-room, but it is unlike the studios which we have been associated with for so many years. Gone are head rests, the sea scenes, the many backs and rests and drops sittings that for so many years have made a photographer's studio not unlike the prop room of a stock company theater. Replacing the litter of ye olden day is the gallery beautiful. French windows with rich, dark green glass admit a suffused light. The floors are polished and at the rear is a handsome mantel and fireplace.

Here in this example of the modern photographer's studio it is possible to take a picture by night as well as day. The light-room is equipped with Cooper-Hewitt Mercury-Vapor tubes in a frame that can be moved about the room and

tilted to any position. It softens the artificial light and takes away that ghostly effect given by the old-time mercury tubes. Portraits made by the use of this light are in every way as good as when made by daylight.

The best equipment modern invention can provide has been purchased for this studio. Probably no other photographer in the country is better prepared to turn out as many varieties of photographic likenesses. From softened sepias to the paper that gives the appearance of being a hand-painted portrait, they are all here. Scattered in the studio are also samples of water-color work done by the photographer-artist showing him to be equally proficient in this direction.

Williams has received many awards for his pictures at conventions and has an extensive clientèle, some of his patrons traveling from northern Kentucky and many points in southern Indiana. The Indiana Photographers' Association honored him last year by electing him president, a post for which he is well fitted by reason of his long experience and congenial nature.

THE DRESSING ROOM

EIGHT PRINTS
BY
R. MORRIS WILLIAMS
EVANSVILLE, IND.

(PRESIDENT
INDIANA ASSOCIATION
OF PHOTOGRAPHERS.)

BY R. MORRIS WILLIAMS
EVANSVILLE, IND.

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EVANSVILLE, IND.

PROFITABLE SIDELINES—VACATION OPPORTUNITIES

BY A. E. SWOYER

"VACATION Opportunities" for the professional photographer naturally depend largely upon whether the vacation in question is his own or that of others; that is, whether he is to make his profit from the summer tourists, or whether—seeking rest himself—he is going to carry with him a little pocket instrument and by its aid make at least part of the expenses of his trip. There is no question, of course, as to which method will show the greatest return for effort expended, but as the mint turns out all dollars of equal size it will pay to consider both plans.

Developing the tourist trade naturally involves many points covered by the preceding article on "Resort Pictures," and not a few of the methods suggested are available. There is this difference, however—in "Resort Pictures" we presumed the photographer to be the resident of one of those smaller towns which entertain as more or less permanent guests during the summer a class of people moderately well off; being a resident, the photographer quite naturally has some aquaintance with these people and can cater to their particular needs. There are other towns which boast a steady year-around business sufficient to support a professional photographer which during the season are flooded with a horde of week-end-vacationists, people of moderate circumstances out for a good time, ready to try anything once—and here to-day and gone to-morrow. Obviously, a different appeal must be made to such people than to the wealthy semi-permanent resident—and this difference represents the variation between the two articles.

Two requisites are necessary in order to cash in on this sort of trade—the first is a thorough appreciation and understanding of the holiday spirit, and the other is the virtue of promptness; twenty-four-dollars-a-dozen platinums won't appeal to the week-ender, neither can he wait three or four days while you go though the red-tape of submitting proofs, retouching and kindred niceties. Postal cards—the "Delivered in five-minnutes" kind—and prints at a dollar or so per dozen make the widest appeal. Then, too, since it is not always good business to insist upon an advance deposit where such small amounts are involved, you have to make quick delivery in order to collect; if you can promise prints for that afternoon or the next day, human nature will bring the sitter and his money back to you—but if you delay so that you must mail prints to some city address, you will have to insist upon payment in advance or else risk loss.

This transient trade being of a somewhat lower order—or perhaps it is more fair to say that it is possessed of a more careless, happy-go-lucky spirit—you can appeal to it by a different class of advertising and of studio fittings. The writer does not believe in coarseness or bad taste in either—but it surely is not "bad form" to feature the price rather than the quality of your work in window display and sign-board, while even the better of the comic backgrounds will appeal to many of those when off on a holiday who would not consider it when at home. By comic, of course, are meant those contraptions painted on cards behind which the sitter conceals all but his head—the

subjects instead of waiting for them to come to you; moreover, you are looking at scenes of interest with the eyes of a stranger and not through the dimmed spectacles of a resident to whom such natural beauties are but an old familiar story told in commonplace rock and earth. Take it all and all, the opportunities are largely in your favor—what they may be and how they are to be developed are governed by conditions and the locality, but it is almost certain that you can find a suitable reward at the expense of very little effort.

At any rate, whether you are at home taking advantage of the vacations of others or abroad enjoying your own, suitable opportunities await only your discovery and may be converted into dollars to an extent limited seriously only by your energy.

GLAZING PHOTOGRAPHIC PRINTS

BY GEORGE SMEE

THE glazing of prints, such as post cards, stereoscopic slides, and many other varieties of developed print, as well as those made upon Solio, and other gelatine printing out papers even to-day very often give much trouble and anxiety, for fear of spoiling by tearing when stripping the print from the plate, particularly when the exact number only have been made. There are three ways by which prints may be given a brilliant and lasting surface. First by a film of collodion, secondly by waxing either a ferrotype or glass plate, and thirdly, by a thorough cleaning of a sheet of polished plate such as mirrors are made of and polishing with French chalk or talcum powder, or by a thoroughly cleaned glass plate without any intermediate material at all.

The collodion process is too expensive for the general class of work, and as a superficial coating of a separate film is not necessary, the waxing process will meet nearly every requirement.

The best waxing preparation I have found in practice, the one I always use for the ferrotype plates, is compounded as given here.

Wax Stripping Solution

Pure Paraffin Wax	160 grains
Benzine or Benzole	8 ounces

The paraffin should be cut into flakes, and added to the benzine. If neither of the above fluids cannot be readily obtained, spirit of turpentine will answer. This is applied by moistening a piece of soft rag. then rubbed all over the ferrotype plate or glass plate, then polished with a soft cloth leaving next to nothing upon the plate.

The wetted prints may be laid face down upon this surface and stroked over the back with a soft scraping squeegee and dried; with plates thus prepared the prints will never stick, without the use of wax, the plates must be well cleaned, and rubbed over with a small quantity of talcum powder and well polished, or the plates may be well cleaned, and the prints allowed to soak in formaldehyde 1 ounce, water forty ounces, for five minutes, and placed directly upon the glass plates squeezed and dried. The removal of the prints is effected by wetting the back of the prints well with water and the plate stood on end to drain; just as soon as they are surface dry wet them again, reverse the position, drain again until surface dry; the prints may then be lifted by raising one corner with a penknife, and laid back down to dry.

Prints treated this way by the use of formaldehyde will come away from the plate freely, either glass or ferrotype.

For cheap work this is a rapid and efficient way both for thin and thick paper.

In my practice, 8 x 10 and 6½ x 8½ developed prints are glazed both by the waxing and the wetted back methods.

MARINE PHOTOGRAPHY

BY WILLIAM A. DAVIS

TO the camerist, who enjoys the sea and things nautical, marine work at once offers a fascinating branch of photography to follow, for in any of its varied phases—whether coast or surf views, harbor scenes, or subjects afloat—a constantly changing array of material of greatest diversity is to be found at every season of the year.

A long list might be made of the opportunities awaiting anyone so located as to be able to take advantage of them, but, being of more practical value, I will devote the space available to artistic and technical suggestions as to how these opportunities may be turned to account in pictorial form.

In arranging a composition try to secure sufficient massing of the tones to give breadth in keeping with the subject, and then do all that is possible to reproduce the relationship between the color-values present. The first named quality is best secured by choosing a time when the shadows are enough in evidence to balance the lights, or in other words avoiding an hour when the sun is high and the entire scene is flooded with light. With the possible exception of the late fall and winter months, the most favorable time for making exposures is before ten a. m. or after two p. m. Not only is the general effect broader when the sun is low, but the glinting lights upon the water and the surface texture of objects are brought out with greater effectiveness, while the quality of the atmosphere is also more conducive as a rule to the rendering of aërial perspective.

To translate into monochrome the relative luminosity of various colors, which is one of the first steps toward securing satisfactory tone values in the picture, rapid isochromatic or non-filter plates are by all means superior to ordinary grades, and it is best to back them, or use a double-coated variety. When the nature of the subject will permit the necessary increase in exposure being given, a ray filter of moderate depth (say 3 or 4x) is frequently of the greatest value, especially alongshore when contrasts are great, or one wishes to make the most of certain relative color values, as white sails against a pale blue sky.

The best all around camera for marine work is, in my opinion at least, one of the long-focus type, not over 4x5 or 5x7 in size; for if too large the apparatus cannot be handled conveniently, either in a gale or when working from a vessel in motion. Under the latter circumstances it is not only of the utmost importance for one to be able to decide instantly when the shifting elements of a scene are at their best, but the camera must allow ease and speed in manipulation. For some time I have done the greater part of my work with a 3¼x4¼ camera, and have no trouble to obtain enlargements of any reasonable size from the negatives.

It is more convenient to use a lens of rather longer focus than usual, say from once and a half to twice the longest way of the plate, for when photographing vessels it is not always possible to get very close, while in work alongshore better perspective is obtained. If not equipped with a longer focus lens, the back combination of a convertible or symmetrical will frequently prove very useful if the bellows extension permits of its use.

A hood or shade of some kind should be fitted, to keep spray and extraneous

A "DOWN-EASTER"
BY WM. A. DAVIS

light off the lens, and it is all the better if this be so made as to protect the shutter as well.

A direct vision finder of good size is the most practical, as one can watch the object rather than a small reflection of it.

In taking vessels a low standpoint is desirable, especially when they are coming toward one, as the lines are more graceful and the general effect more impressive.

For the usual run of such work, an exposure of 1/50 second is quick enough when subject and camera are moving at moderate speed, but if a rough, choppy sea causes the boat from which the work is done to roll and pitch much, or the subject is moving rapidly across the field of vision, a higher shutter speed may be desirable. In any case when working from a steamer in motion it is safer not to stand directly over the engines, as their vibration is more likely to cause "fuzzyness" of the image than movement of the subject. In the summer season exposures of 1/100 second can be made on pleasant days up to nearly sunset on fast plates, with lens at F. 8. During the brighter hours of the day the lens will bear stopping down to F. 11 or 16, or by regulating stop and shutter speed properly it is possible to use a light ray filter.

The best results pictorially are obtainable when the light is softened by some haze or clouds, which make little or no difference in the exposure required, except near sunset, when the atmosphere under such conditions is usually quite yellow.

Exposures alongshore will be considerably longer under similar lighting than those made on the water, owing to the shadows receiving less reflected light; also the general increase in contrast brought about by the inclusion of objects at close range, such as dark rocks, or buildings and shipping in harbor scenes. The only way to obtain good shadow detail and soft printable high lights in a

negative under such conditions is to give a *full* exposure, timed for the first, and then develop for the high lights.

Surf studies stand in a class by them-

READY TO SAIL
BY WM. A. DAVIS

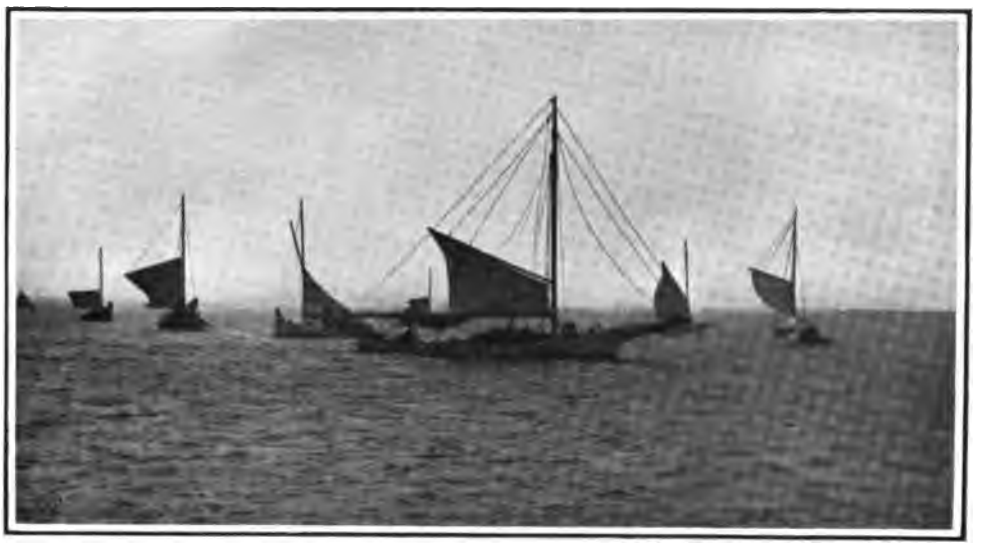
selves, and in taking flying spray it is necessary to time the exposure entirely to suit the motion of the water, depending upon regulating the size of stop to make it right for the strength of light prevailing. If the exposure is very rapid the spray always looks "frozen"—all feeling of motion being lost—but of course it is possible to go to the other extreme and produce a "wooly" effect. As a rule about 1/30 second gives the best impression of movement without losing the surface quality of the water. The only exception which might be made is when the foam or breakers are taken at very close range, and even then it is not best to give much shorter exposure.

When possible to do so, it will be found a convenience to mount the camera on a good stiff tripod (weighted if necessary by attaching a bag filled with sand or stones), as this allows one to arrange the stationary elements of the composition on the focusing screen to start with; after which full attention can be given to watching the movements of the incoming waves, as the effect desired must to a great extent be anticipated, and when what is thought to be the right wave is just breaking the shutter release pressed while the spray is rising, for should one wait until the full effect is seen it would be too late to catch it. For this reason some losses must be expected, due to errors of judging.

A side light and background of grey sky or clouds brings out the details in spray to best advantage, but in the case of incoming waves or the bubbling froth from a breaker very beautiful effects are sometimes seen against the light on a bright day.

In developing marine exposures the main thing is to employ a clean (but not contrasty) working developer, and stop its action before the high lights are blocked up. I generally use a combination of edinol-hydro, or the first alone, of moderate strength for tray development, bromide only being added in case of evident over-exposure or when the subject itself showed excessive flatness in the high lights.

Where sunlit surf and dark rocks appear in the same composition it is sometimes impossible to develop in a way to obtain crisp high lights and sufficient strength in the shadows to make them print harmoniously. In such a case all one can do is to get the light and half-tones right, and then retard the passage of light through the thin portions by working up the negative; one of the best methods being to stain the film with a weak aniline dye.



ESCALLOP BOATS BY WM. A. DAVIS

SUNSET ON THE HARBOR BY WM. A. DAVIS

THE SULPHO-CYANIDE TONING BATH

BY "PROFESSIONAL"

THE value of the sulpho-cyanide of ammonium and gold-toning bath, as a universal toning solution, does not appear to have presented itself as an excellent toning medium for photographs that are made by printing out, as well as for bromide and gaslight chloride prints.

Prints that are made upon printing out paper can be toned regular, and uniform in color, either as a rich brown or a deep, purple brown, showing no signs of double colors.

The use of this toning medium should be better understood, because it can be used the instant it is made, or it can be used a month afterwards, as well as repeatedly, by simply adding a small quantity of chloride of gold solution each time the bath is used.

The important point to be attended to in the use of this bath, is to employ one tray only for its use, and to filter the solution, previous to use, upon each occasion, unless it has not been used for several days, or a week, then, by simply decanting the clear portion into the toning tray, and the addition of a small quantity of chloride of gold solution will enable the toner to be used at once.

The uniform color, either brown or purple-brown, is secured by the diluting of the solution for the brown tones, and the purple-brown is secured by employing the bath as given in the formula, or in other words, a rich, brown toning is secured by a weak bath, and the purple-brown by a strong one.

A sulpho-cyanide gold-toning bath should be kept away from light when not in use, and not allowed to come into contact with any metal; if it should do so, the solution will become deprived of its gold, and the bath spoiled, necessitating the preparation of a new one.

For prints made by the printing out process, after they have been well washed in half a dozen changes of water, they can be toned in the following bath:

Sulpho-cyanide of Ammonium..	45 grs.
Water (that has been boiled)...	50 ozs.
Chloride of Gold.....	5 grs.

The above proportions are for purple-brown toning, for deep-brown, dilute the above with twenty onces more water, making seventy ounces in all.

Do not attempt to secure the purple-brown color in this diluted bath, it cannot be produced; if the toning is continued, the prints will bleach, which will produce anything but a pleasant color.

The fixing of these prints must be made in a plain hypo-sulphite of soda bath with no addition of other chemicals.

The fixing bath should indicate 20 on the hydrometer, and ten minutes given for the fixing, and one hour's washing of them after fixing.

Prints toned in this toning bath will dry to a color much deeper than they appear to be when wet.

When the sulpho-cyanide bath is to be used for the toning of bromide or chloride prints made by development, the quantity of both the sulpho-cyanide of ammonium and the gold must be increased; the deposited image made by reduction with the developer is a little more refractory than the direct-printed image.

The modification is only slight, but it answers the purpose. In general practice I use water that has been boiled, this brings about the precipitating of many of the impurities that tap water contains, it also costs less than distilled water.

For toning developed prints:

Sulpho-cyanide of Ammonium..	90 grs.
Boiled Water	60 ozs.
Chloride of Gold.....	6 grs.

Keep the prints in motion; the blacks will quickly improve, and the whites, also; no refixing is required, only a good washing, when the prints may be dried, or mounted while still wet; or if the prints are of the glossy kind, they can be squeegeed upon a waxed ferrotype plate, dried and stripped in the usual way.

Too much care cannot be taken to keep all traces of the plate or paper developers away from the trays and containers of this particular toner; any reducing agent, such as metol, hypo, hydroquione and paramidophenol will ruin this bath completely. With care and cleanliness this toner will render good service, and, if the prints are washed well, will render photographs that will stand many years without showing signs of fading.

THE INTENSITY OF LIGHT

BY FELIX RAYMER

AFTER close observation and many talks with other photographers I have come to the conclusion that it is on this one point of lighting that they disagree so much. It is well known that operators disagree as to the strength of the light when it falls on the face of the subject.

We nearly all are of one opinion as to the direction of the light; that is, from what point the light falls on the subject. But we often differ as to the amount of detail wanted in the shadows, and the strength of the high lights as compared with the shadows.

I was once one of a party of ten operators that went to a studio in Louisville with the understanding that each was to make a sitting of some one, while the others criticised the lighting and pose. Every one had to say something either for or against the sitting. It was a noticeable fact that in nearly every case the difference of opinion came on the question of strength. One man would say that he thought the lighting too strong, and another standing at his shoulder would say "I do not think so, for I usually make mine still stronger," and so it went. In but very few instances was there any difference of opinion as to the direction of the light falling on the figure.

As I see the matter, this question of strength in the high lights is not a matter of principle, but one of personal preference, and the paper used for printing the picture. In some cities we will find men within one or two blocks of each other that are making vastly different work, and yet who is to say that one is bettter than the other. One will like plenty of pluck and vigor in his negatives, while the other will want softness and detail to predominate. It is also true that each man's trade will likely come in for consideration, and he will have to make what they want to some extent.

It has been my practice to have in mind the two extremes in negative making, and remembering them I have been able to get what I wanted with greater ease. It should be remembered that there is never a time in making portraits that we want absolute black, and neither is there a time when we will want absolute white. This being so, if we have either one or the other the lighting will be too strong. That is, it will be too full of contrast, and will lose in roundness and softness. Therefore we are to look to the shadows and the high lights with

equal care. This is often overlooked by operators who seem to think that if the light parts of the picture are all right the entire composition will be all right. But such is not the case. It has been my experience that the shadows will require closer attention than the high lights, for if there is any stray light in the room it will show its effect on the shadows before it will in the high lights and will cause a loss of the modeling so necessary for a successful result.

The plan I follow in judging the strength or intensity of the light is to raise the high lights as high as I can, making them as strong as I can, without having them throw off a reflection; that is, I do not want to lose the flesh tints in the highest light. They should never look as though they were resting on marble or glass. Let the flesh show through the very highest of them. If it does not there will have to be something done to make them softer. It is not nature to have the face so white that we cannot tell that it is flesh; nor should the picture so interpret it. There is no such thing as a white man. We have those that we *call* white, but they are not. The flesh will in all cases show color, and our pictures must do so.

To lower the tone of the high lights when they are too strong I have found nothing that I like so well as an ordinary white head screen, and which can easily be made or purchased. There are those that object to the white screen, saying that it destroys modeling. This is not my experience. I claim for it just the reverse. I am sure I can do better modeling with it than without, when the high lights are too strong. This screen in the hands of one that understands the use of it will give any effect desired, from the very faintest reduction of the light to a flattening effect. The farther from the subject it is raised the less its effect will be noticed. Of course the nearer it is brought the lower the high lights will become until it is possible to so flatten them that all modeling will be destroyed. It is likely that those using it and finding fault with it have had this trouble. Do not lower it any more than enough to just see the flesh begin to come into the highest light, and then stop.

On the other hand, if the shadows do not show detail it is an indication that they will come out in the negative a black mass, which should never be allowed in portraiture. To illumine them to better advantage I am still old-fashioned enough to use a white reflector on the shadow side of the figure. I will add just here that this too has been objected to by some of our workmen. To my mind it is a good thing when used rightly. It is also claimed for the reflector that it destroys the modeling. So it does if it is not used rightly. If an operator does not know how to place it so that it will do the most good he will likely destroy the modeling. The reflector should be considered as carefully as the skylight. Do not think it can be used "any old way" successfully. It cannot. One of the easiest ways that I have found for determining when reflected light is needed is to look at the shadow cheek; if there is a sharp line formed where the light leaves off and where the shadow begins the reflector will have to be used. Now begin to draw it up to the subject very slowly, keeping it well to the front, until this line has rounded out on the cheek, then stop. If it is carried farther it will destroy the modeling.

To sum up. If there are flesh tints in the highest lights and also detail in the lowest shadow, it follows that there will be detail and half-tones in all parts that come between these two extremes.

Now this is where operators differ. One will run just as high on his high lights as he can and still have detail or flesh tints in them. This will of course bring up his shadows higher so as to be in harmony, and will result in a high key of work. The shadows must be illuminated higher in order that the line formed where the light breaks on the shadow cheek may be rounded. To do this it will require a greater use of the reflector. Another operator will go in just the opposite direction, for he will make his shadows as deep as he can and still hold the detail in them. To do this he will be working in a much lower key of light, and making his shadows so deep

will cause the high lights to take on greater contrast by comparison, which will give a much stronger effect. But which is right? As I see it, both are right. The only difference being that one likes a high key of light and the other the low key.

As a rule the operator working in the low key is the one that likes to show the character in the face, bringing out as many of its little individual markings as possible. To do this he will lower his shadows, and in doing so will concentrate the light at some parts of the face stronger. In this way he will secure the accentuation of those parts, holding them up to their proper weight as compared with certain other parts that are not of so much importance.

The operator making the high key of work is usually the one that prefers to idealize his subject. He will in most cases flatter (?) her in the lighting, if possible, as well as in the retouching.

The key of light must be lowered by the use of opaque screens, or shades. It cannot be done by using white shade or curtains. They only serve to filter the light, and will merely soften it. The principle of lowering the key of light is to make the shadows longer. It is the same as a match compared to an arc light when held within three or four feet of a head. The match will throw a longer shadow than will the arc light. Now, the idea of concentration, is to use opaque curtains or screens so as to make the actual working opening in the light smaller, and at the same time move the subject nearer to it; in doing so the high lights will still hold their own, remaining at the same strength, thus giving a stronger result. If we bear this in mind we need have no trouble in getting our light too strong or too flat. Use opaque screens if more strength is desired, thus accentuating certain parts, and subordinating certain other parts. Use white shades or curtains for making a softer result with less accentuation, as the light is filtered through them, and will fall on the subject with less force.

A GOLD AND PLATINUM SINGLE TONER

BY GEORGE SMEE

TONING prints with the combined salts of gold and platinum has been tried in many ways, and one preparation containing a salt of copper turned out to be moderately successful, with a collodion paper. There never appears to have been a successful gold and platinum toner for the printing out gelatine papers.

To gain that end I have tried every published formula with varying and indifferent results. Having made up my mind to succeed if possible I have worked out a formula that meets the requirement to a nicety, without any further trouble than the usual washing, toning and fixing. The washing in the first place must be thorough. There will be no need to soak the prints in salt or any other solution before toning, only the usual plain straight go-ahead way as is done with ordinary prints.

Three stock solutions must be prepared and kept in the following order:

The stock platinum solution is made of

(1)

Bichloride of platinum	60 grains
Water	10 ounces

(2)

Sulphocyanide of ammonium	1 ounce
Water	10 "

(3)

Chloride of gold	15 grains
Water	7½ ounces

The toning bath is made by taking four ounces of the sulphocyanide No. 2 solution, half an ounce of the chloride of gold No. 3 added thereto, ten ounces of water must now be added, and lastly half an ounce of the bichloride of platinum No. 1 solution, the toner is now ready for use.

The prints must be printed much darker than for gold toning. As soon as they have been well washed, place them into the toner, turn them over, replace them after another turn over, watch the change in color. At first they will seem to bleach, and look a foxy brown; keep them on the move and in the course of five minutes or a little over they will change to a dark chestnut brown with just a tinge of purple, or more correctly a black tint. The toning must not be carried too far; place them into a tray of water, wash them well, and fix them in a plain bath of hyposulphite of soda (no alum and no acid), three ounces of hypo in a pint of water, turn them over a number of times in the hypo; this will ensure even fixing and a pure brown black tone, very rich in color, totally different to the tones brought about by toning with gold alone, and superior in every way to a second toning in a separate platinum bath. I have recently toned a considerable number of 6½x8½ prints with this bath. Nothing have I seen in line of single toners to equal the color obtained by this preparation. The platinum content without doubt will be the means of rendering the prints more permanent, at the same time simplifying the process of gold and platinum toning. Weak platinum prints are also improved by fifteen minutes' immersion in this bath.

THE IMPORTANCE OF BREADTH*

BY JOHN A. TENNANT

AMONGST the many lessons which make up the art side of photography the one of most interest to the photographer of to-day is that which treats of the pictorial quality in a portrait, which is denominated by the word "breadth."

Hitherto, the weak point in the photograph, when considered as an artistic production, has been the inordinate amount of detail rendered by the lens. For some years, indeed, photographers sought especially for detail in their work, and a lens was esteemed according to its power of producing sharp detail in all the different planes in a composition. Gradually, however, as the teachings of art are being more appreciated, the desire is becoming more prevalent amongst photographers to suppress detail, and to introduce into their work that broad treatment of light and shade, of tones and half-tones, which constitute what is understood by the term "breadth."

"Breadth," Prout says, is a technical term of art frequently employed so indiscriminately, and applied to ideas of such different natures, as to render difficult any attempt to limit its meaning within the strict and narrow boundaries of satisfactory definition. The "common acceptance of the term is *an extension of light, dark, and half-light;* the quantity expressing different degrees of the character of effect required." From this it clearly follows that the artist who wishes to characterize his work by "breadth"

* Reprinted from WILSON'S, March, 1906.

must have an intimate knowledge of the functions of light and shade. This is by no means so difficult as is generally supposed, all that is required being a good guide, examples of the work of *masters* of light and shade (both of which can be found in Burnet's "Art Essays"), and as much careful practice, based upon the systematic study alluded to, as is possible.

The works of Rembrandt should especially receive the attention of the student; Prout calls him "the master-magician of light and shade;" all his works show his intense appreciation of the values of light and shade, to which knowledge his fame is due.

It should be a matter of care, however, that in seeking to know the value of breadth the student should not fall into the silly vagaries of the "naturalistic" theory. This may be avoided by the simple observation, that of the eye, resting upon a composition, neither sees a mosaic of sharply defined individual features nor a collection of blurred forms, but masses and forms defined and subordinated in such a way as to present a pleasing and pictorial effect.

The portraitist should therefore make it his chief aim, in his work, to convey general impressions expressing the most characteristic and pleasing features of his subject, rather than to produce an exact and map-like copy. To do this it is, of course, essential that he should know, not only what *are* and what *are not* the things of importance to be expressed in the picture sought, but also how to dispose of the light and shade in his power, so as to make this predominant and that subordinate, and so gain the desired effect.

A small quantity of pure white light should generally be introduced in every portrait, so placed as to lead the eye of the spectator to the chief point of interest.

With regard to shadows and their disposition, the chief thing to be remembered is that darkness does not necessarily mean depth. The main effort, therefore, in lighting a portrait, should be directed to the distribution of light and shadow so as to give broad effects having an apparent point of interest to which all other features are subordinated.

HOW TO MAKE A STUDIO PAY

X. BUSINESS-GETTING SCHEMES

BY FRANK FARRINGTON

OUTSIDE of the ordinary methods of advertising a studio into success there are many ways of developing business by special plans and schemes. Of course these plans must be well advertised or they will come to nothing, but each has in it an element of interest that gives it a pulling power on the public pocketbook as well as on the popular mind.

Not all of the plans given here may be practical for your studio. It may even be that none of them will prove available in just the form detailed, but these schemes are subject to such modification as may be desirable and in some form they will be available to help you increase your business.

Scheme I. Offer to give a series of six free lessons on amateur photography with each sale of a camera worth ten dollars or more. These lessons would include making the exposure; developing the film, with methods of securing the greatest value from it by usual methods; making the prints; mounting or squeegeeing, etc. By limiting the giving of the lessons to the sale of cameras of a certain

price you may be able to increase the quality of the camera purchase as many will feel that it is worth a good deal to have the instruction and the better grade instrument by paying only a little more money than may have been intended.

Scheme II. Offer to frame and present to any local fraternal organization, club or society the photographs of its officers without charge. This would mean from three to five photographs and they would all be framed together in a common frame. The offer would be contingent on the organization caring enough about it to agree to hang them on the walls of its room. You would have the negatives of some of these officers but you would have to make some of them apparently without return. Your return, however, would come in the orders that would naturally result for pictures of those for whom you had to make sittings. Any officer whose photograph appeared would immediately be deluged with requests for photographs and an order would be certain. The advertising value of the plan, however, would be worth its cost, for you would have a sample frame of your work hanging in a conspicuous place where it would attract attention and favorable comment.

Scheme III. Offer a 16x20 bromide enlargement free with every order for a dozen or more photographs from a single negative, provided the photographs ordered are worth $4 or more per dozen. Of course the fixing of this price is a matter the photographer can adjust for himself, but if he has to buy the bromide enlargements they will cost him at least 50 cents each and he should allow for this. If there is kept on hand a supply of picture frames suitable for framing these bromides, and if the print is first shown the purchaser in such a frame, it is very likely that a frame will be purchased at a rate that will pay sufficient profit to cover the cost of the free enlargement, and perhaps something beside.

Scheme IV. Get the local newspapers to boost your business by suggesting to them that they run a series of pictures of the local business men, agreeing that if they will do this you will allow them to state that you will make for any business man a photograph free of cost to him. This is merely one way of getting into the studio that hardest of all customer to interest in having a picture taken, the business man. Of course it will be up to you to see that the subject orders some extra pictures besides the one made for the newspaper.

Scheme V. Another newspaper plan is to get the newspaper to run a prize contest giving a prize for the prettiest baby and printing one or more pictures each week, stating that you have agreed to make a free picture of each contestant. You can afford to add to the newspaper's prize list one or more prizes in the way of free pictures; a dozen to the winner and half a dozen to the next, or a bromide enlargement for first prize, etc.

Scheme VI. Offer to give at the end of a six months' or a three months' period a prize to the person ordering during that period the largest number of photographs, or the largest value, or to the family having the most members photographed, or to the patron coming farthest to have a sitting made, or to the oldest man or woman, or the smallest baby or the largest group, etc. There are many bases for such a prize offer and if it is kept before the public it may have the effect in many instances of increasing an order or securing an additional sitting. It will certainly keep people interested in the studio.

Scheme VII. In order to interest the amateurs get up a prize contest for them to take part in, offering a series of prizes, in work or in stock, for the best photographs in each of a number of different classes. Make it a stipulation that the pictures submitted become your property, or at least be left with you long enough so that at the climax and close of the contest you can hold a public exhibition of the pictures. The general public will take an interest in such a contest and will come in large numbers to see the exhibition if it is properly advertised. Everyone who comes should be given

advertising matter about amateur supplies and every effort made, in a suggestive though not insistent way, to develop interest in purchasing. The names of all visitors should be taken down and made into a mailing list for use in sending out advertising of amateur supplies. The judges in such a contest should be people well qualified and the judging should be done so that no blame can attach to the studio management in the event of disappointments on the part of expectant winners.

Scheme VIII. You can get attention to a special offer of any kind you wish to make by having it printed in brief on your statements or bill-heads and mailing these to the people you wish to interest. Everyone will look at what seems to be a bill, particularly when it comes from someone they know they do not owe.

Scheme IX. In introducing a new style of photograph of a distinctive sort, advertise that you want a name for it and will give an extra dozen of the photographs to the person ordering that kind and suggesting the best name for it. Give a coupon to each patron sitting for that kind of a picture and let them fill out that coupon with their suggestion of a name. Run the contest for a month or so and then choose the best name submitted and advertise the name and the winner well in order to get the benefit of the resultant personal interest.

Scheme X. To every patron sitting for a picture and ordering a dozen, make the offer that if he or she will bring in someone else to sit for a similar style of photograph or better, you will present to the former individual an extra half dozen photographs. This will send every customer away with the first dozen photographs, determined to get a friend to come and sit so as to provide the extra half dozen pictures free.

Scheme XI. If there is some local church organization that is making a strenuous effort to raise money for some particularly worthy purpose, make them the offer that you will give to them 25 per cent of the receipts from any sitting they secure for you. Issue a coupon or blank form which the church people can sign and give to the person they wish to interest. Then when they get that person to come and sit for a picture the coupon is given to you and on payment of the bill for the pictures, you remit the church its 25 per cent. It should be made a stipulation preferably that in order that the church get its share, the sitter shall pay cash. This plan might be worked in connection with efforts to raise money for Red Cross, Y. M. C. A., or other similar purposes.

Scheme XII. You can interest the schoolchildren in amateur camera work by offering a prize, through the teacher if possible, for the best composition on amateur photography. This will set all the children thinking and talking about the matter and it will interest them in securing cameras. If the compositions prove of sufficient interest, some of them, the prize winners at least, may be printed in your newspaper advertising space, or even grouped together in a little pamphlet which shall give the names of the winners and perhaps even their pictures. Such a pamphlet might be mailed to all your mailing list of camera prospects. If the prize is offered for the ten best reasons why every child should have a hand camera, it will be productive of much valuable advertising matter. There should not only be a main prize but a number of smaller ones. Where there is but one prize in any sort of a business contest people will not take hold of the plan much. Everyone thinks, "There's no use of me trying. I can't get the prize." If there are a number of prizes everyone thinks of the chance of getting at least a small prize and hopes for the main one.

Scheme XIII. Imprint on the envelopes of various sizes used for delivering photographs the following inscription, putting it in a corner.

Thank You!

We appreciate your patronage and hope you will not only come back for more work but also send your friends to us. If you have a

complaint to make about our service please make it *to* us not *about* us.

Scheme XIV. Get up a lot of tickets good for 25 cents each on a dozen photographs of any kind. Put these tickets up in bunches of ten and call in a limited number of live, honest schoolchildren. Give each a packet of the tickets and tell them to go out and sell the tickets for 5 cents each. Put the stipulation on each ticket that not more than one will be accepted on any one dozen photographs. Keep a record of the tickets given out and hold each youngster accountable for his or her supply. Insist too upon a list of the people who buy the tickets. Give the children the entire five cents on each sale. People who pay a nickel for the tickets will value them as they never would if you were to hand them out without charge. And the 25 cents value imprint enhances their value still further.

Scheme XV. Give a prize of a dozen photographs to the person making the largest number of words out of the letters in your studio name. This will familiarize the contestants with your name plate in a way that nothing else could do. Let them use the letters only as many times as they appear in the name.

Scheme XVI. Get public personages in your locality to sit for their pictures without charge, giving them a copy of the resultant photograph. The advantage of having on file the negative of every local public man is that you can expect that man to refer the newspapers or anyone else wanting to use his picture for publication to you and you can make a good charge for a single print sold for this purpose and exact the imprint of your studio on the halftone reproduction. If the individual does not want to ask the paper to pay for his picture, he may order it himself and then of course he has to pay for it and at your suggestion will invariably take half a dozen in order to be prepared for the next emergency when it arises.

Scheme XVII. If there is a boarding school or college of any kind in your town, secure permission to put on the table in each room before the arrival of the students a few sample post cards of your town. A couple of good photograph view cards, one showing the school buildings and the other the town as a whole, will interest every student and the pictures will be sent right off home with proper notations on them. Fasten to the two post cards with a paper clip a coupon good for one free photograph of a popular priced class. This coupon and the advertising value of the post cards, which predispose the student in your favor, will probably bring you a large proportion of those students for a sitting. They will want to send a picture home. Make a feature of the statement that sitting for the one photograph does not place them under the least obligations to take more of the pictures. Explain that you want them to know about your studio and the class of work it can do and that you take this method of showing them. When they come, do not bore them with urgent solicitation to order more pictures or you will counteract the good effect of what you have already done.

Scheme XVIII. This country is baseball crazy half of the year. Get the local baseball players to let you make a large sized photograph of them in playing togs. Keep one of these in the sample case and if opportunity offers to get snap shots of the team on the field, use these in the sample case also. The idea is not that these are to be specimens of your best work but they are to help draw attention to your sample case by reason of their individual interest for the public.

Scheme XIX. The simplest way to get coupons into the hands of the public is to print them in your newspaper space. Instead of employing expensive methods of getting the coupons out, give up a suitable proportion of your space in the paper to the coupon always making it large enough to be readable. The best position of course for a coupon is the corner space. In any event get it next the edge of the paper somewhere if you can.

Previous Articles, "The Man and the Location" (Oct.) "Buying and Arranging the Stock" (Nov.) "The Treatment of Customers" (Dec.) "System in the Studio" (Jan.) "How to know the Profits" (Feb'y) "Credit and Collections" (March) "Developing the Side Lines" (Ap'l.) "Advertising You Can Do." (May and June.)

TRANSLATIONS AND ABSTRACTS

BY E. J. WALL, F. R. P. S.

A SUGGESTION FOR MOTION PICTURE MAKERS

ALL kinematograph positive film, so far as I am aware, is coated with silver bromo-iodide emulsion, although way back in 1890 a chloro-bromide emulsion was used in England, this being a washed emulsion. Now excellent as is the bromo-iodide emulsion, everyone knows that it is not so suitable for thin ghostly negatives as the chloro-bromide, such as has now become so popular in the form of development papers of the Velox and Cyko type. The speed of such an emulsion being from 20 to 40 times slower than the average kino positive film would seem to place it entirely out of court, unless an extremely powerful light source could be used.

A series of experiments proved that not only is it possible to use such an emulsion, but the results from thin negatives are incomparably superior to those obtainable on the ordinary positive film, and with the same speed of printing. Unfortunately the experiments were interrupted before accurate photometric measurements could be made, therefore the results are without any measured results to prove my statements.

The light source employed was the Cooper-Hewitt quartz mercury vapor lamp for 110 volts, D. C.; the length of the tube over all being 7 inches, which means a 5-inch light-giving tube length. This was used without its outer glass globe and enclosed in a roomy iron house, well ventilated, and connected with a Bell & Howell (Chicago) printer working continuously at the approximate rate of 1,800 feet per hour for bromide film. The conection with the printer was an ordinary bellows so that the distance of the light could be varied from the film gate by merely sliding the lamp house to and fro on iron rods. The actual emulsion chosen was an unwashed chloro-bromide, giving great contrasts and practically of the same speed as the commercial development papers of the same class.

The first experiment was made with the tube six inches from the film gate, a very thin negative being used, the rate of movement being 300 feet per hour, and on development not a trace of an image could be seen, nothing but a black patch, proving absolute overexposure. The speed was then increased till 1,800 feet per hour was reached and still the results were overexposed. Finally it was found that for the particular negative in use a perfectly exposed positive was obtained with the quartz tube 24 inches from the film gate.

Other experiments with other ghostly negatives printed in this way on the chlorobromide emulsion and on the ordinary kino positive film proved to my satisfaction the great superiority of the chloride emulsion, and the possibility of the use of such emulsions in combination with the quartz mercury lamp.

It may be asked what is the value of this note. So far as I am aware it is the first time that any chloro bromide or chloride emulsion has ever been printed at the same rate as a bromide. Secondly, there is no question as to the superiority of the results on such emulsions from thin negatives as regards tonality and fineness of grain. With regard to the latter point, everyone knows that the image on a chloride emulsion partakes, if one may use such a term, as more of the character of a stain than a metallic deposit, as is the case with the ordinary bromide emulsion. This is a matter of considerable practical importance when one considers the enormous magnification to which kinematographic pictures are subjected.

Such emulsions as I have mentioned are not now on the market, so far as I am aware, but they would soon be if there were any demand for them. It is unnecessary to say anything about development beyond the fact that an ordinary paper developer was used. I may possibly give one caution and that is with regard to the light. The quartz tube is transparent of the ultra-violet rays to about wave-length 2,300, and to look at the tube without protection is not a trick that one would play twice. As I always wear glasses I relied upon these to protect my eyes and was therefore a little careless; for after working with the spectroscope for about half an hour and testing various dyes for fluorescence, I found that on going out into the daylight that I could see a small black tube continuously before my eyes. This did not worry me because I knew

that it would work off, but when about three hours later I began to involuntarily cry and kept this up for practically 24 hours and at the same time suffered from the most acute frontal neuralgia, I knew that once more I had played the fool. Therefore the moral is never look at the quartz tube without heavy lead glass in front of it; of course, with the glass globe, as supplied by the makers, it is perfectly safe.

Also, as probably everyone knows, the ultra-violet rays are extremely energetic ozonisers and therefore in a very short time in a small room the smell of ozone is very marked, and those unfamiliar with it may worry as to what it means or will do. All that it can do is to kill any bacteria lodging in the nasal and bronchial tubes and lungs, therefore it is really more beneficial than harmful, that is, of course, if there is reasonable ventilation, otherwise an excess is rather irritating to the lungs.

E. J. WALL, F. R. P. S.

INVENTION OF CHRONOCHROME PICTURES IN NATURAL COLORS.

THE new chronochrome pictures, recently exhibited privately in New York by their inventor, Leon Gaumont, are regarded as a very long step toward popularizing and making permanent the use of moving pictures in natural colors. The chronochrome is a French invention and its basic principle differs from that of any natural color process now in use. It follows the line of the three-color halftone printing process in the use of three separate lenses and three separate filters, one for each other. For each image on the screen three images are required in the film—one for the yellow filter, one for the red and one for the blue. This necessitates double speed in the projection apparatus, or 32 revolutions instead of the usual 16 for black and white projection. The proportions of the image are changed from the usual size. The width of the film remains at standard size with standard perforations, but the up and down measure is reduced, giving a more oblong image. The reduction is made by putting three images into the up and down measurement of two standard images. In one way this horizontal image is an improvement, as it gives a fine panoramic scope which the standard size image does not allow.

On the projection machine one light and one lens are used. Before the lens are three-color glass—red, yellow and blue. All three images project simultaneously through their respective color filters and register on the screen with great accuracy, thus producing the life-like color effect. There is but one shutter used on the machine; it is the ordinary two-wing outside metal shutter, common to many projection machines.

By the use of the three prime colors, the color range of chronochrome is unlimited. By this process it is possible to record every color of the spectrum; the delicate blues, mauves, purple greens, ochres, orange. This is admirably demonstrated in the reproduction of multi-colored sea shells with half tints of every color changing constantly as the shell turns. Another important advance in color photography by this process is the possibility of taking pictures by artificial light. One complete story picture in costume was perfectly done, and another showing Venetian glassware by lamplight was especially good, the lights being gradually diminished to almost total darkness. This opens a field of vast possibilities.

Perhaps the greatest stride by the chronochrome process is the elimination of wands of color following any fast motion. This effect is sometimes known as the barber-pole effect and has been a source of much annoyance and eye strain. This bad feature is entirely absent in the Gaumont process, for the very good reason that all of the colors are on the screen all the time, and as they never leave the screen there is no possibility of their getting mixed. The fastest motions are recorded equally as well as the slower ones.

Taking these improvements, eliminations and advance into consideration, the Gaumont chronochrome may be regarded as a great success and one that will no doubt have a tremendous vogue when it is put before the public.

METOL POISONING

J. BRUSHWOOD of Ansco Ltd., London states that if metol is used with potassium carbonate instead of the corresponding soda salt the trouble of metol poisoning will not be met with. He specially recommends the following for Cyko paper:—

Metol	4.5 g	90 grains
Sodium sulphite anhydrous	44	1¾ ozs.
Hydroquinone	6.5	130 grains
Potassium carbonate pure	32	1¼ ozs.
Potassium bromide	11	220 grains
Water	1000 ccs	40 fld. ozs.

For use mix with an equal quantity of water.

A. Bennett states that a solution of sugar of lead (lead acetate) applied at night and as frequently during the day as possible is a quick and satisfactory remedy for this trouble.

B. J. 1914. *p.* 431.

HYDROQUINONE DERIVATIVES.

LUMIERE and Seyewetz have been examining the influence of the introduction of chlorine, bromine, the sulphonic, chlorosulphonic, bromosulphonic, nitrite and methyl radicles into the benzene ring of hydroquinine. They find that chlor-hydroquinone is more energetic than hydroquinone, dichlor still more so and that replacing chlorine with bromine gives yet more energy. The addition of the sulphonic and nitro radicles reduces the action but the introduction of the methyl group gives a very energetic developer.—*Phot. Woch.* 1914. *p.* 201.

Chlor-hydroquinone and brom-hydroquinone have been commercial articles, under the name of adurol, since 1899, but the other addition products are quite new. This work, like much of these distinguished chemists, is extremely unsatisfactory, because no photochemical data are given. Exactly what the term "very much more energetic than hydroquinone" means is known only to the authors.

Glycin for Development Papers.

Namias strongly recommends the following for development papers:—

Sodium sulphite	62.5 g	1 oz.
Glycin	15	105 grains
Sodium Carbonate	100	700 "
Potassium bromide	10	70 "
Water	1000 ccs	16 fld. ozs.

With normal exposure 1 part of the above with 2 parts of water will give a greenish black. If the exposure is prolonged and the above diluted with from 5 to 30 parts of water the color of the images varies from warm black to yellow.—*Photo-Revue.* 1914. *p.* 128.

The Grisail Process

The Albert Co., have introduced a new photomechanical process, which is very highly spoken of in Germany. Zinc plates coated with a black etching ground are sold by the above firm coated with a bichromated colloid, and dried in a special box in about 1½ minutes, then exposed as usual under a line or halftone negative and immediately immersed in a special 'Grisail' bath. In this the unexposed parts of the colloid and the black etching ground are dissolved and the image appears, the plate is then ready for etching.—*Zeit F. Repro.* 1914. *p.* 74.

A Supplementary Lens to Obtain Artistic Softness With a Corrected Lens.

Hans Deser, Rathenow.

Generally in the making of a lens it is not a question of producing unsharp pictures, quite the opposite, as for most purposes sharp definition right up to the edges is required.

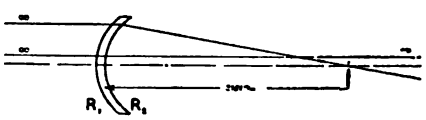
There are a number of processes to attain this end, and recently one[1] has been suggested, which has merely increased the number of these processes, without offering any advantages. The simplest process is undoubtedly to make a negative in the ordinary way and then to print from this with the interposition of a sheet of glass or celluloid of greater or less thickness between the negative and the paper. With diffused light prints of any desired softness are thus obtained.

Soft pictures can be obtained with an ordinary objective by purely optical means, as by the use of a supplementary lens, as described below. I might add that this method is actually only of theoretical interest, as the same result can be obtained much more simply and cheaply by the interposition of the celluloid in printing as described above.

As regards the lens in question it obviously has the purpose of destroying the spherical correction of the objective used, without at the same time affecting the focus.

According to a suggestion of our director, Herr Martin, this can be attained by the use of a simple strongly curved meniscus, the focus of which for the axial rays is infinity. Parallel rays falling on the margins of such a lens will, in consequence of the unequal refraction of the anterior and posterior surfaces of the lens, not pass as parallel to the axis as will the paraxial rays, but converge towards the axis; the focus of such a meniscus is thus only infinitely great for axial rays, whilst for marginal rays it is finite and actually positive and so much the shorter the greater their distance from the axis. If such a lens is placed in front of a spherically corrected lens, there will be obtained by the combination spherical correction in the sense of undercorrection, as exists in uncorrected convergent lenses, and it is easy to see that by more or less strong curvature of this supplementary lens this spherical aberration can be varied within wide limits. The practical result is a general want of sharpness, so that it is not possible with such a combination to obtain a sharp focus of any point. The principal focus, however, of the objective is not affected.

The question arises how such a supplementary lens acts on the marginal parts of the image, as hitherto we have only considered the spherical aberration on the axis. It is, however, pretty clear without calculation that there will not be a degradation of the image by astigmatism, if the lens is strongly curved; for the convergent action of the marginal parts of the lens is very little for rays inclined to the axis, and these oblique rays pass through the supplementary lens almost normally, so that stronger refraction with astigmatic deformation can not happen. It may be noted that there would be no difficulty to so calculate the curvatures of this lens that an astigmatic formation of the oblique rays would not be caused, it may also be noted that there are two forms of simple lenses which fulfill the required conditions.



The calculation of such a supplementary lens was carried out by me in 1910 and the trial lens proved at once the expectations. The data for such a lens are as follows:

$R_1 = 22.5$
$R_2 = 21.49$
Thickness $= 3$
Index of refraction for $D = 1.51$.

[1]This probably refers to Schmidt's idea of using ground glass in front of the plate. See Wilson's, 1913, p. 437.—*E. J. W.*

Focus of the axial rays is infinity, the focus for the marginal rays = 2161 mm.

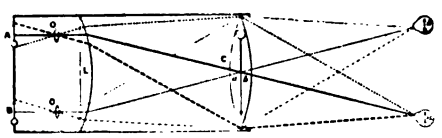
The accompanying figure shows such a lens, only the focus of the marginal rays is shortened on account of want of room.

(A communication from the Emil Busch Aktiengesellschaft, Optische Industrie, Rathenow.)

A New System of Stereoscopy.

The classic form of stereoscope, despite its apparent simplicity, is a marvellous instrument, but it has many inconveniences. It requires a comparatively long focus for those persons who have not normal vision; and various trials are required to see only one picture.

M. Andre Cheron has designed an ingenious solution of the problem that enables one to examine stereoscopic prints with the naked eye. The arrangement is really very simple.



A stereoscopic print A B is placed in front of two lenses O O′, as in the usual stereoscope. Behind these two lenses there is placed a large lens L, which is sufficiently large to cover both objectives, and this concentrates on its focal plane the two real images projected by the two objectives.

If in this focal plane where the two images are superimposed in a b, we place a condenser C, the rays belonging to each image will no longer be confused, but will converge respectively in a and b to the left and right eye of the observer. The latter will look at the images at a certain distance which will be the end of the box.

Without the aid of any ocular each eye will see solely the image which it ought to and this will be an aerial image which will give the illusion of relief and perspective. The accommodation will be effected as if the objects themselves were situated in space.

The diameter of the images projected is doubled or tripled M; but the distance at which the images are observed being also increased in the same proportions the angle under which the objects are seen is approximately the same as in the ordinary stereoscope. The use of mirrors permits placing the lenses in two tiers thus cutting down the length of the apparatus which would be rather cumbrous if the three groups of lenses were placed on the same axis.—*Bull. Assoc. Belge*, 1914, *p.* 96.

A Good Stain Remover.

J. M. Sellors states that the following treatment will remove almost any stain met with in negatives:

Potassium bichromate	20 g	160 grains
Hydrochloric acid	10 ccs	80 minims
Water	1000 "	16 fld. ozs.

Immerse the negative in this and wash for 20 minutes, then flow over with

Potassium permanganate	25 g	6 grains
Sulphuric acid	125 ccs	30 minims
Water	1000 "	5 fld. ozs.

A few minutes is usually sufficient to remove most stains, though soaking up to 20 minutes will do no harm; after removal from this, place in a 10% solution of sodium bisulphite lye, then wash for ten minutes and redevelop with amidol.—*B. J.*, 1914, p. 369.

Positives Direct in the Camera.

W. Ricketts advises the following as the best developer for making the above, using a slow thinly coated plate:

Hydroquinone	30 g	300 grains
Metol	3 "	30 "
Sodium carbonate	50 "	1 oz.
Sodium sulphite	50 "	1 "
Potassium bromide	4 "	40 grains
Hypo	300 "	6 ozs.
Ammonia (strongest)	50 ccs	1 "
Water	1000 "	20 "

This fixes and develops the plates.—*B. J.*, 1914, p. 390.

The same worker suggests the following novel method for positives direct on postcards. Expose a gaslight (development) card to white light only long enough to obtain a good black on development. Coat the card with collodion emulsion and dry, then expose in the camera in the usual way and develop with

Hydroquinone	9.75 g	¾ ozs.
Sodium carbonate	100 "	2 "
Sodium sulphite	50 "	1 "
Potassium bromide	4 "	40 grains
Water	1000 ccs	20 ozs.

Keep the developer as cool as possible. After developing and fixing, rinse the card in clean water and then place in methylated spirit and rub away the collodion surface, when a perfect positive will be found on the card.—*B. J.*, 1915, p. 446.

The author states that the positive is formed by the deposit of the collodion preventing the developer from acting on the gelatine emulsion, and that where the light has not acted the developer penetrates and develops the gelatine emulsion. This explanation may be correct but it hardly sounds so and one must have a grave suspicion that what really occurs is reversal of the primary exposed salts by the second exposure.

EDITOR'S TABLE

Get the Business Habit.

COMMERCIAL men have been known to remark that the photographer is, as a rule, deficient in the business end of his profession. Artists and scientists, of whatever grade or branch, are too often unfitted by their training and nature to meet the practical issues encountered in everyday business. How rarely do we see the artist blending with his pictorial skill the turn of mind needful to secure the best results from his talents! There is a lack of method in his work which, when put to a commercial test, discloses a want of appreciation of the first principles of business. This statement cannot be denied by the keen observer, and, therefore, must not be taken as a reproach by photographers more than any other class. As a body they must of necessity know something of art and science, if only in a small way, and naturally the omission of the third quality needful for success is not to be surprised at. But business acumen is the keystone of the arch.

The photographer is time and again urged to concentrate more of his time and thought on the art side of his work. Good advice to follow, but would he not be better repaid by a more diligent application to the business end of his profession? He must master thoroughly the questions of lighting, posing, developing, etc., until these become second nature. Lofty ideals do no harm, but the chief end of business is not in the knowing how to do the best work but how to turn good work to the best advantage.

We all know the photographer who can pose well when he likes and make a good negative, but who is unreliable. His studio has an untidy appearance, his dark-room is even worse. Poor business with a limited and uncertain income is the result. His competitor in the same city is of the other sort; he runs a neatly appointed and well kept studio, his proofs are delivered when promised, his sitters get the impression that they are doing their own posing and can do it more naturally than he can, while all the time he is posing them to the best of his ability. He is content to think that the plate manufacturers know the best developer for his own brand of plates. He is courteous and observant and concentrates his attention on the essentials, leaving the higher ideals somewhat severely alone. Good business with its rewards follow.

While the photographer should strive for artistic and scientific skill in his profession he should not forget that management and salesmanship are the first essentials for success in business. It he can, without losing sight of these two points, cultivate his ideals the greater will be his reward. But the fact remains that fair work, well placed before the public, is bound to produce better business results than good work poorly introduced. The prime essentials for business success are business methods and businesslike management.

The Summer Months.

HOT? Of course it is. What could we expect? What would we have? The experience of a lifetime has taught us that we always have hot weather in July and August, and who would have it otherwise? After all, it is not the heat that we have to fear but the lack of heat. If we failed to have hot days and hot nights in summer, it would be a greater calamity than all of our fires and floods and earthquakes put together.

Business dull? Of course it is. It is always dull in the summer months. But who would have the business bustle and cares of the winter continued, without a break, through the entire year? It might prove a greater misfortune than a summer frost. It is the changing of the seasons that has put the peoples of the temperate zone in control of the earth's affairs, and it is the periodic returns of busy seasons, alternating with times of less activity, that keep the wheels of industry and commerce moving. It is the alternations of night and day, storm and calm, of heat and cold, that make life worth living and the alternations of busy and dull times give a zest to business which otherwise would sap our energies and make us as listless as the naked South Sea Islanders.

It is in the summer that Nature rejuvenates herself and covers the earth with her bounteous riches, thus making provision for the months to come. In this miraculous exercise of her forces, she not only enriches man, but she grows strong and fit for future struggles, and so, year by year, she furnishes the basis for the commerce of the world.

Why, then, should we complain of the summer? Let us rather be wise and, taking a lesson from Nature, use the summer to conserve our energy, gather new courage and strength, and make new plans for the months to come.

We must not overlook the fact, too, that summer always brings possibilities of its own, that increase year by year, and that is sufficient to keep us busy, if we want to be.

Expression and Likeness.

ON what does likeness depend? It seems a simple question, but it is one which cannot easily be answered off-hand. Likeness is associated with detail of feature, but such is scarcely a sufficient definition, for we can recognize our friends a block away when not a single feature can be defined. Perhaps likeness lies in the masses of light and shade; but these vary according to the light, or the hat worn, or a score of other variable quantities. It can scarcely be considered as lying in outline, for little of unvarying or distinctive outline is seen except in profile, and we do not see much of our friends by profile. At least it may be considered that likeness at close range depends more on the surfaces than on the outlines of the face. Doubtless the eye is familiar with every detail of feature, every mark, and is equally conversant with every characteristic pose or gesture, and with every appearance of masses of light and shade on the face when at a distance. The eye sees a figure at a distance, and at once recognizes it, without knowing why. It may be a peculiarity of walk or poise of the head. That is all that can be seen at a distance, but for the rest, it is known to the mind of the one who sees, and that is sufficient. A figure is known to a certain extent by its motions; for many persons, especially men, have some peculiarity of gait. But to endeavor to reproduce this peculiarity would in photography lead to disaster; caricature is best able to portray it, and that is a province that professional photography has no wish to enter, though it may occasionally unwittingly stray in that direction. "Arrested motion," as it is termed, is the rock on which such attempts come to grief. But if the suggestions of motion in a figure be beyond the scope of professional photography there is yet left to us the equally characteristic attitude of repose; evey man—and every woman—has a characteristic attitude, and in that attitude there is one chief and dominating factor. It may be some beautiful pose of the hands or the placing of the arms. It may be a frown, or a craning forward of the neck, or any one of a score of things. In any full length the appreciation of a characteristic attitude goes far toward success.

The photographer very naturally, and inevitably, makes the portrayal of the face his chief business; but probably a mistake has been made in too much of exclusiveness in this direction. The obtaining of a more comprehensive likeness, as opposed to mere detail of feature, is a class of work with possibilities; and is a class apart from the mere pictorial rendition of three-quarter or full lengths. This latter is very beautiful, and has both a commercial and an esthetic value; nor

can it be said that we see too much of it. But there is equal room for rendering in which the merely pictorial yields in part to character. This character-likeness is indeed to the figure what expression is to the features, and it is to be obtained in the same way. Without expression, the features, however beautiful or however correctly photographed, are a mask rather than a soul. With it we obtain the life and charm of the true portrait. Expression can seldom be conjured up by the sitter; it must come naturally and spontaneously and without consciousness. There is an art of taking beautiful photographs, which from their beauty are pleasing to all who do not know the originals, and which are considered as likenesses because they are recognizable. There is also an art of obtaining a true likeness—and one not incompatible with beauty or pictorial quality—through a correct rendering of attitude and expression. And this latter is not cultivated as much as, with profit, it might be.

PHOTOGRAPHY IN GREAT BRITAIN

A Review of the Month from our own Correspondent

LONDON, *June* 3rd.

NEARLY every industry, trade, or profession practiced in Great Britain has its annual exhibition in London, and photography is no exception. Apart from the public exhibitions promoted by organized photographers, amateur and professional, of which we are having so many from suburban societies just now, the exhibition is of a very different character to the others, dealing solely with photography from a trade and industrial point of view. In a word it is the only manufacturers' exhibition we have. There are many photographers who deplore the absence from the annual autumn exhibition of the Royal Photographic Society, of the trade section where the newest inventions, appliances and materials may be inspected along with the pictures. But I think there are more, in particular the further advanced amateurs, who heartily approved of the separation. Some referred to it as the "commercializing of art" and cited the absence from the Royal Academy of a display of painters' materials. Whether the discontinuation of trade exhibits from the "Royal" is an incentive to the art-loving public to visit the show or not is too controversial a point to raise here, but to revert to matters more mundane the suspension was not a financial success for the trade stands were perhaps the best source of revenue.

The Arts and Crafts Exhibition.

To adequately describe one-twentieth of the exhibits at the Westminster photographic arts and crafts show would be a Gargantuan task, suffice it to mention but a few of the most notable improvements. Two organized bodies, the Society of Color Photographers and the Professional Photographers' Association, have stands, the former with a beautiful display of transparencies and the P. P. A. with a representative collection of professional work. In connection with the latter a gold medal was awarded by a vote taken amongst the members to Mr. M. Cooper, of Taunton, Somerset, for a clever portrait study on "Cyko," a product of the Ansco Company. The stall of the Ansco Company is undoubtedly one of the most attractive in the building. A large complement of American professional contributions is supplemented this year with a display upon Ansco papers of representative British work. Cyko and Cykoro paper evidently enjoy quite a great vogue in this country as in the States. Tabloid toning chemicals also provide a convincing demonstration of the efficiency of compressed chemicals, for the visitor is shown a wonderfully stereoscopic print of an iceberg toned green through this agency. I do not think the Photostat has been seen in public in London previous to this exhibition, but now it forms the chief exhibit of the Kodak Company, and it is no exaggeration to state that an instrument which reproduces letters and drawings with such rapidity is bound to establish its commercial value.

A misleading exhibit is that of Johnson & Sons, photographic chemists. At first glimpse the impression is that of the bazaar of an Oriental jeweler, but a close inspection reveals nothing more than an ordinary range of photographic chemicals. Of course much depends upon the method of display. Instead of gold chloride being shown in the familiar tubes plugged with cotton wool, the exhibitors have gone to the trouble of crystallizing it in corrosive silica crucibles. The same with silver nitrate, of which there is nearly $5,000 worth. A huge stand in the middle aisle is occupied by the numerous products of that well-known British house, Houghtons. The stand alone is worthy of attention, embellished as it is in

early Victorian oak panelling. The whole of Messrs. Houghtons' apparatus are of the Ensign brand and some space is devoted to demonstrating a system of plate-changing by which the plate does not leave its cover until completely developed and fixed. What is alleged to be the largest photograph ever made is suspended at one end of the hall and covers about eighteen square yards. It was made by the exhibitors, Illingsworth's of Willesden, and was done in a single piece at one exposure. Amongst the different apparatus a turbine washer built upon a new principle claimed more than ordinary notice. Mr. C. S. Banton is the inventor, and it is constructed from a zinc-drum, riddled with perforations. The prints or films are deposited inside the drum (unfortunately it seems scarcely adapted for plates) which is set in motion through a flow of water pouring over the water wheel at the end. Half an hour of this is said to equal hours immersion in ordinary running water. But the palm for the most striking piece of camera work mechanism in the entire exhibition must be awarded to the inventor of the "Magfo," which, as its name implies is a magazine folding camera. Despite the advance of cameras of the Kodak type one has only to glance around at holiday time to see what a huge number of magazine or box-form cameras remain still in use. The "Magfo," introduced by Messrs. Horne, is a camera of this type and will take a dozen plates. After exposure these are dropped in the usual manner into the bottom of the camera, but when the last has dropped it is possible to make that part of the body holding the plates into a separate light-tight compartment. The other portion of the camera folds up and the plate box swings into a compact vertical position.

In the gallery upstairs close upon one hundred examples of professional work is shown under the auspices of the Professional Photographers' Association. This is the only exhibit open to criticism, for while everything is in strict order below the numerous prints are jumbled together under the single title "P. P. A.," without any further clue to the visitor as to the identity of the work.

Projection apparently has little inducement to offer to the manufacturer to exhibit for I only noticed a single contribution to this department in the form of a light lantern, with lens and lighting source as undetachable fixtures. Possibly this is attributable to the time of the year being unsuitable or else manufacturers are reserving their exhibits for the Kinematograph exhibition later in the season.

Professionals at Congress.

In conjunction with the trade exhibition the Professional Photographers' Association held their fifth annual congress. A gathering of professionals, representative of the 900 members of the association, attended the annual meeting, presided over by Mr. A. Ellis. A number of questions raised at the gathering revolved around the progress and membership of the association. Out of 4,500 professional photographers in the country less than 1,000 are members. As a remedy for this a Northamptonshire member suggested that like the photographic convention the congress should be held in a different town each year. In view of the increased price of plates, Mr. T. Pinder, of Rochdale, suggested the formation of a plate factory to be run under the control of the Association. Another discussion centered around the Daylight Saving Bill at present under consideration in Parliament. The scheme (which literally proposes to move the hands of the clock back four hours and so lengthen the business hours of daylight) was provocative of much discussion. Mr. Lang Sims advocated the scheme as beneficial to photographers. Other members thought it unscientific, and the new president (Mr. M. Cooper) thought it would entail longer hours for their assistants, as there was a temptation to keep shops open so long as daylight lasted. A motion supporting the scheme was eventually carried.

During the week the members visited the factory of Messrs. Illingworth & Co., photographic manufacturers, and the publishing works of *The Graphic.*

Jubilee of a Famous Firm.

Last month the famous professional photographic firm of Maull & Fox of Piccadilly, London, celebrated the anniversary of their start in the profession sixty years ago. Their experiences would fill volumes, as would the names of the celebrities they have photographed since they first opened their studio in 1854. Mr. Maull, the founder of the business, was formerly a portrait painter and originally applied photography to avoid the necessity of giving his customers so many sittings. On one occasion in the early days of the wet plate a special order was undertaken to take some photographs in Scotland. The cumbersome camera and tripods filled a stage-coach to themselves and in this manner they travelled 400 miles north, whereas to-day the sitter drives up to the studio in a motor-car and is out again in half-an-hour. In the fifties noblemen with their families drove into Piccadilly in a stage-coach and made a half-day's outing or a family tea-party upon such an auspicious event as a visit to the photographers. True enough photography is not often credited with figuring in history, but I might add in all modesty that more negatives of genuine historical value are to be found in Maull & Fox's studios than in any other in the Kingdom. Let us take a few of the 250,000 negatives. First we come to Garibaldi, the Italian fighter for freedom, and Mazzini, and amongst another lot is stored excellent likenesses of Sir Garnet Wolseley just returned from Egypt, Lord Roberts after Kandahar, General Colley, the hero of Majuba Hill, and Admiral Tryon. Amongst

hundreds of others, Dr. Livingstone, the African explorer; Robt. Stephenson, the inventor of the locomotive; Faraday, the scientist; Arthur Orton, the central figure in the memorable Tichborne case, and Baroness Coutts in a crinoline the size of a parachute, stand out conspicuously. It is recorded that Tom Sayers, England's leading prize-fighter of the time, once visited the studio. An assistant took his photograph, but when Mr. Maull saw it he was furious that a prize-fighter had visited his place. He ordered the negative to be smashed up and as only one print had been made from it one can readily estimate its rarity and value.

Photography a Woman's Business.

"Photography is essentially a woman's business where her intimate good taste will stand her in good stead in the hurly-burly of latter-day business life," states a lady writer in a society paper. "Many a successful photographer of to-day will acknowledge that he owes much of his success to the keen artistic and business instincts of his wife, though before her marriage she may have known nothing about the business."

The Carbon Process.

I wonder how many American photographers are aware of the fact that the carbon process has completed its fiftieth year of existence. This beautiful process was invented in 1864 by Sir J. W. Swan, now an octogenarian, and was recently demonstrated before the members of the Royal Photographic Society. The only disadvantage—if such it may be termed—of carbon is the necessity to have the sensitive tissue perfectly fresh. The company working the patents in this country manufacture a special storage tin, but even with this it does not keep fresh for any length of time. But after all there is no disputing the superiority of carbon over ordinary bromide work and it is more than likely that a greater percentage of the exhibits at our exhibitions will be made in this medium. Mr. Alex. Keighley, whose landscapes have been shown in every corner of the globe, works practically exclusively in carbon.

A New Lense.

The firm of C. P. Goerz of Berlin have just marketed a new anastigmat which is named the "Dogmar" and works at F. 4.5. The new lens is a remarkable combination with three distinct foci when each component is used to the best advantage. The claim for the "Dogmar" is that it constitutes an all-round lens suitable either for portraiture, landscapes and copying.

New Fellows of the "R. P. S."

The following have been admitted to the fellowship of the Royal Photographic Society: Miss F. Flemming, Miss M. O. Edis, Mr. K. Proszynski, Capt. W. N. L. Davidson, Dr. E. A. Barton, Mr. B. C. Wickison, Mr. A. Woolford, Mr. W. Bickerton, Mr. W. Jackson, Mr. H. M. Lomas, Mr. Morton, Mr. S. F. Pegler, and Mr. R. Williamson.

J. B. SUTCLIFFE.

NOTES AND NEWS

CONVENTION REPORT PHOTOGRAPHERS' ASSOCIATION OF AMERICA, ATLANTA, GA., JUNE 15TH TO 20TH, 1914.

THE 34th Annual Convention of the Photographers' Association of America will be regarded by many as a notable success, and an advance toward a higher code and standard for the profession. While the attendance was much smaller than at previous conventions, the interest and enthusiasm was none the less, and the delegates were unanimous in the opinion that the exhibits and demonstrations far surpassed anything in the history of the Association. The exhibits were from the studios of the most famous photographers, not only in this country, but noted photographers of the old world sent best specimens of their work. The quality of the photographs on exhibition was of a higher artistic quality than usual. It was also gratifying to see that the tone of the lectures and demonstrations at the Convention this year, more than years past, were for the treatment of photography as a fine art, rather than the emphasis on the commercial side of the profession.

The new officers were elected as follows:

Will H. Towles, of Washington, D. C., President.

L. A. Dozer, of Bucyrus, Ohio, First Vice-President.

Ryland W. Phillips, of Philadelphia, Pa., Second Vice-President.

R. W. Holsinger, of Charlottesville, Va., Treasurer.

THE WOMEN'S FEDERATION elected the following officers:

Maybelle Goodlander, of Muncie, Ind., President.

Clara Louise Hagins, of Chicago, Ill., First Vice-President.

Sara F. T. Price, of Mt. Airy, Pa., Second Vice-President.

Bayard Wootten, of New Bern, N. C., Secretary and Treasurer.

Indianapolis was selected as the place of meeting for next year.

On all sides were heard expressions of appreciation of the co-operation and hospitality shown the visitors, especially the local photographers did everything possible to see that everyone got attention.

As the Convention closes just as we are going to press for this number, we regret that we cannot give a more lengthy report, but will do so in our August issue.

On the whole, the Convention was considered an extremely interesting one, and of much practical help and uplift. We regret, however, that this "National" had to be confined to any local section, and although without question it carried many benefits, it is unfortunate that it was not more in the nature of a truly national gathering. In this great country, instead of a membership of about a thousand, it would seem the Photographers Association of America ought to boast of a membership of many thousand and the Convention be of so wide a scope that its importance and recognition would be universal and world-wide. This is a high standard, and we believe the sooner it can be reached the better it will be for every member of the Association and the profession.

THE Photographers' Association of America at its thirty-fourth annual convention held in Atlanta, Ga., June 15-20, went on record as favoring legislation enabling manufacturers to fix the resale price of their merchandise.

The resolution was introduced and passed by the Photographic Congress through the instrumentality of Carl E. Ackerman of New York.

The Photographic Publishers' Association of America, which held a meeting at the same time and place, also passed a resolution endorsing the Stevens' Bill; one of the measures now before the National Congress providing for price standardization. Both bodies will urge their members to forward this legislation by writing to the individual Congressmen and Senators.

ANNOUNCEMENT.

"HOW TO MAKE A STUDIO PAY," by the well-known expert Frank Farrington, will be published early in September. No more important hand-book for the professional has been issued in recent years. The practical subjects covered include: "Buying and Arranging the Stock," "The Treatment of Customers," "System in the Studio," "How to Know the Profits," "Credit and Collections," "Developing Side Lines," "Business-Getting Schemes," etc., etc.,

This will be an invaluable hand-book for every studio. Price only one dollar ($1.00) postpaid. All orders will receive prompt attention. Address this office for circular and further particulars.

ALL THE YEAR

THE all-the-year photographer. The one who keeps busy all the time and recognizes the fact that this is the way to do business and not to work night and day for one month just before Christmas and then loaf or half work the other eleven months.

Now photographs are just as desirable in the spring as they are in the winter, and just as desirable in the summer as they are in the spring. The fact of it is, that the warm days will soon be here and ten to one, half the photographers have still last fall's style of cards in their show cases. They are not prepared to meet the demand for the style of picture that is wanted at this season of the year. You cannot expect business unless you make a bid for it. Go out after it, dig it up, make a display of photographs that will create a desire for photographs and be always, everlastingly at it. The man who does not expect much business during any certain month of the year, you can rest assured, will not get any more than he expected. The less the demand, the greater the need for advertising and hustling.

Just as soon as a photographer learns that the photographic business is a business for twelve months in the year, they will begin to make money and they will talk entirely different from what they do at the present time. Talking dull business does not bring in $ $ $. Going after business and getting it is the one thing that counts. This is an ideal time to show all kinds of summer pictures—reunions, views, cirkut pictures and to get the people interested for your summer business. Go after the business and be in position to take care of it when it comes.—*Ohio Photo News.*

IT is with sincere regret we announce the death of Mr. E. A. Atwater, for the past several years connected with the Central Dry Plate Co., of St. Louis, he having passed away last Friday, the 22nd at the home of his brother at Chadron, Neb., to which place the company sent him several months ago on account of poor health, hoping that the change of the air and climate would benefit him, but other complications set in and he never fully recovered his health.

Mr. Atwater for many years was connected with the M. A. Seed Dry Plate Co., and was known to photographers from Coast to Coast and from the Lakes to the Gulf. He was one of the must conscientious salesmen on the road. His knowledge of photography and underlying principles of dry plate making was very extensive.

THE PHOTOGRAPH'S GREATEST OPPORTUNITY TO BECOME WORLD-FAMOUS PRACTICALLY OVER NIGHT.

AT no time in all photographic history have the photographers of America been offered such an opportunity to build a bigger business, and at the same time achieve national fame and win a worth while prize as that presented by Ansco Company's $5,000 Loveliest Women Contest.

Think what it means to have your work—*your* masterpiece—exhibited to the whole world at the great Panama-Pacific Exposition. Think of the prestige—the advertising value such an exhibition affords, to say nothing of the personal pride in getting your efforts before such a distinguished international audience.

Leading magazine, too, have requested the privilege of reproducing the winning photographs, along with the names of the winning photographers. Here is the finest kind of advertising, at a time when interest in the Contest is at fever-heat.

Sufficient inducements indeed to rouse into action the ambition and enthusiasm of every follower of the art of photography! But ahead of all these considerations is the one suggested above—the *opportunity to build a bigger business.*

The national advertising Ansco Company is doing at heavy cost in the leading popular magazines is for your benefit and theirs and is intended to send to your studio the "Loveliest Women" prospects.

Make use of the free, newspaper electrotype service offered consisting of attractive cuts prepared especially for photographers by advertising experts. These will help you, by the expenditure of a few dollars in your local paper, to get all the value there is in Ansco Company's national advertising campaign costing hundreds of thousands of dollars.

One of the fine things about these electrotypes is that they are *practical.* They are not so large that it requires a big expenditure for them in your local papers, and they are not stock cuts. There is ample room for your name and address at the bottom, just as though you had them made yourself, to your own specifications. This is not a new idea, but it is certainly different from the thought behind the average electrotype, which often usurps all the space for the manufacturer, and crowds out the man who is paying for the space.

Aside from their practicability, these little advertisements are very artistic and contain just the sort of copy that will bring new customers to your studio. This is not theory. It is working out in practise every day, and the surprising number of requests Ansco Company has already had for electrotypes is a good indication of their value to photographers. Send for yours today, before you lay this magazine aside, if you haven't already done so.

You have till December first to make the most of these wonderful opportunities. That's plenty of time IF you get busy right away. Talk to your Ansco dealer about the contest, and get your entry blanks from him or write Ansco Company direct for them.

Remember that there are fifty cash prizes, ranging from $500 to $50. There is no reason under the sun why *You* cannot win one of these.

Remember, too, the electrotypes—they are furnished to you *absolutely without cost.* Send for yours today and for the sake of increased business, international fame, and a real, spendable cash prize, get right into the thick of this contest *now.*

TORONTO CAMERA CLUB.

Report of Eleventh Salon 23d Annual Exhibition.

Held in the Club's Gallery April 27th to May 2 1914.

The Toronto Camera Club appreciates the interest taken by so many new exhibitors, in addition to those who have contributed in previous years and hereby tenders its best thanks to all who have assisted in making this 1914 Salon the most successful of Photographic Exhibitions.

The scope of the Exhibition is now quite international. An opportunity is afforded of viewing the pictorial efforts of foremost workers in no less than seven of the countries of Europe, as well as those of the Motherland and the United States. Canada is also well represented.

Of the 764 prints submitted to the Jury of Selection, 442 were chosen as having the requisite Standard of Artistic Merit. No less than 97 came from Europe, 84 from Great Britain, 121 from the United States, and 142 from Canada, 95 of the latter being the work of the Toronto Camera Club's own members.

The Jury of Selection had no light task in assigning their awards of the Gold, Silver, and Bronze Medals, and the general excellence of the exhibits is attested by the unusual number of Honourable Mentions.

Of the 9 medals awarded 4 went to workers in your country who also took 17 of the 54 Honorable Mentions. Of 111 Exhibitors included in the catalog, the U. S. was represented by 35 who submitted 237 prints of which 121 were accepted by the Jury of Selection.

Awards were as follows:

Gold Medal, A. S. Weinberg, Groningen, Holland.

Landscape, Silver: A. F. Snyder, Philadelphia, Pa.; Bronze: G. Gootley, London, England.

Portrait, Silver: A. D. Brittingham, Tuckahoe, N. Y., U. S. A. Bronze: Marcus Adams, Reading, England.

Genre, Silver: Egon Ratibor, Winnipeg, Canada; Bronze: E. H. Weston, Tropico, Cal., U. S. A.

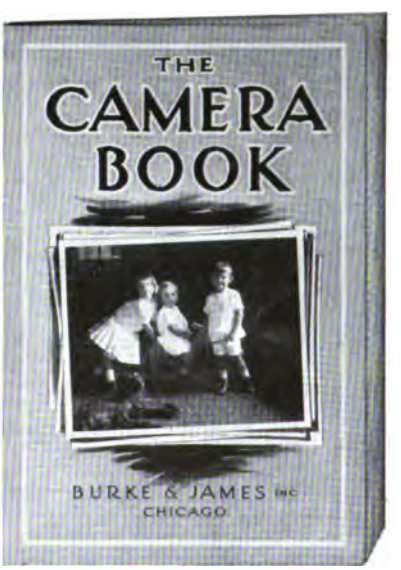
Marine, Silver: W. G. Shields, New York City, U. S. A. Bronze: T. Crabtree, Norden-Rochdale, England.

The club is greatly indebted to the Jury of Selection, consisting of G. A. Reid, Esq., R.C.A., O.S.A., Principal of the Ontario College of Art; J. E. H. Macdonald, Esq., A.R.C.A., O.S.A., and J. P. Hodgins, Esq., a Past President of the Club, for the thoroughness which attended their arduous duties.

Exhibits for future Salons, of which due notice will be given, will be heartily welcomed by the Club.

The Camera Book.

Burke & James, Inc., have just issued a new amateur catalog, and it is most appropriately named the Camera Book. It contains a most interesting introduction which, we dare say, will be read by every amateur and dealer into whose hands it may fall. Take these few lines on baby pictures:—



"Oh, what would not mother give if her baby could always be with her. But you're gone, little baby, you're a man now, and mother misses your happy baby laugh. Keep a photograph album of baby! Have an Ingento of your own so that you can keep your baby's laugh with you always. See him as a boy, a youth, a man. An Ingento Camera costs little, while baby's pictures are worth many, many times their weight in gold."

Get your Camera Book now and let father and mother read these pages. When you write for the Camera Book, be sure to ask for the special offer on the No. 1A Folding Ingento, the complete outfit ready to take pictures. Mention this magazine.

Death of Sir Joseph Swan.

We regret to record the death on May 27 of Sir Joseph Swan, at his residence, Overhill, Warlingham, Surrey, England.

Born in 1828 at Sunderland, the earlier years of Joseph Wilson Swan's life were passed in pharmacy, during which time he showed aptitude and enthusiasm for experimental chemistry. In the year 1860 the partnership with Mr. Mawson was entered into by Swan and the firm of Mawson & Swan was established.

But Sir Joseph Swan will perhaps be chiefly associated with photography by his invention, in the year 1864, of the process of carbon printing. Previous to this time endeavors had been made, chiefly by French experimenters, usefully to apply the discovery of Fox Talbot in 1852 that a mixture of gelatine and potassium bichromate becomes insoluble in water on exposure to light. The difficulty which faced the earlier workers was that in the exposure of a film or tissue bearing gelatine and bichromate together with a pigment, the effect of the light was to form a skin of insoluble gelatine over the whole surface. Attempts were made to obviate this difficulty, such as exposing the coating through its paper support, or by using, as Fargier did in 1860, a collodion support for the development of the exposed film of gelatine pigment and bichromate. But up to the time of Swan's invention the process remained one which was impracticable for general work. He introduced and patented the method of transferring the exposed tissue and so developing it from the back. The exposed print was floated on a solution of indiarubber, and a piece of paper treated in like manner. Both being allowed to dry, they were pressed together with the exposed surface of the print in contact with one side of the rubber-coated paper. The tissue, thus mounted, could be readily developed in hot water, the original paper support becoming detached and the water obtaining free access to the understratum, or back, of the gelatine coating. Swan also introduced the plan of preparing the tissue without the addition of bichromate, employing this latter as a sensitising bath shortly before use. In England the process was acquired and marketed by the present Autotype Company; in France by Messrs. Braun, of Dornach. The process came as a notable addition to photographic printing methods, since it yielded prints of extremely fine quality and free from any suspicion of impermanence. Swan devoted his attention also to its application in the production of intaglio printing plates, and his patents contain descriptions of methods which have been utilized in the rotary photogravure processes which have been perfected during the past few years.

His partner suffering death in 1867 by an explosion of nitroglycerine, Swan for some

years subsequently had little leisure for scientific experiment, but following the papers in the early seventies on the production of gelatine emulsion he turned his attention to the manufacture of gelatine dry-plates, and "Swan's Plates" were the first to appear upon the market—in the latter part of 1877. At this time, it must be remembered, the idea of a ready-made gelatine dry-plate was not one which was commonly entertained. Experimenters were seeking to produce an emulsion for use by the photographer himself, but in this, as in his patent of two years later for paper coated with gelatino-bromide emulsion, Swan showed the foresight with which he recognized the immense importance of the gelatine emulsion, then coming into use but by no means received favorably by the majority of photographers.

Of Swan's invention of the carbon-filament incandescent electric lamp it is not within our province to speak, but by this invention, upon which Edison at the same time was independently working, electrical illumination became a practical thing, and Swan himself, in 1879, was the first to give a display in this country of the new illuminant. He originated the design of lamps having a carbon filament, devised methods for the manufacture of the filament, and, in short, equally with Edison, laid the foundations of this great industry. Official recognition of the services rendered by Swan to industrial science came to him only comparatively late in life. Although he was made a Chevalier of the Legion of Honor in 1881, it was not until 1904 that acknowledgments were officially made in this country of his knighthood. He was elected a fellow of the Royal Society in 1894, and ten years later received the Hughes medal for his electrical inventions. He was President of the Institution of Electrical Engineers, and of the Society of Chemical Industry, and in 1903 was the first President of the Faraday Society. Recently the Newcastle City Council had decided to confer upon him the freedom of the city in recognition of his achievements, but at the time of his death the formal presentation had not taken place.—*B. J. of P.*

COMMERCIAL PHOTOGRAPHY OF TO-DAY, by Geo. W. Hance. Every phase of commercial photography is covered in a clear, non-technical manner by a photographer who for many years has made a specialty of the subject and has appeared as lecturer before many gatherings of photographers and at conventions. The apparatus needed, the kind of prints to make, prices, combination prints, doctoring negatives, banquet work, Cirkut pictures, exteriors and interiors, furniture, glass, silverware, store windows, etc., are only some of the subjects on which real inside information is given in the twenty-two chapters of the book. Nearly one hundred illustrations. Cloth bound. Size 7¼ x 10. Price, postpaid, $1.50. Obtainable at office of WILSON'S.

IMPROVED SIMPLEX PROJECTOR ADVANCED IN PRICE.

OWING to the numerous improvements made in the Simplex Projector in the last year, the manufacturers are forced to advance the price of this, the most perfect motion picture projector to $300.00, former price being $275.00. Notwithstanding the advance, this remains the best "buy" in the machine market to-day. Special literature giving full description of this marvel of mechanical and optical efficiency sent free on request. Address your inquiry to the Cine Dept., of Burke & James, Inc., Chicago.

NATURAL STEREOSCOPY WITHOUT TROUBLE

In Vienna at the exhibition of scientific photography which is being held there in connection with the Medical Congress according to the *Wiener Wochenblatt*, there is an exhibit which marks a great advance in the progress of photography. This is a series of photographs in which true plastic effects are obtained without the employment of a stereoscope or any other optical apparatus.

For the different things depicted, in order to make them stand out boldly in their true relations to each other, all that is necessary is to have the picture looked at directly and vertically, and not from either side. These pictures are obtained in a simple way. A double negative is made in the usual way by means of a stereoscopic camera with two lenses. Instead of the reconstruction of the plastic image by means of the stereoscope, the inventors, Messrs. Friedmann and Reiffenstein, have discovered a method of making each eye see only one image.

This consists of the application of the fact that when placed against a white background the image becomes invisible, but when the image is bleached, just the reverse is the case. From the negatives which have been obtained in the ordinary way with the stereoscopic camera, are made, therefore, from one an ordinary transparent positive and from the other a negative which is afterwards bleached. If you assume that from the negative which corresponds to the image seen with the right eye, the ordinary positive is made and that the left eye's picture becomes the bleached negative, then the superimposing of these transparencies one on top of the other, when laid upon a white background only the right picture will be visible.

On the other hand, if it is placed upon a black background, only the left picture would be seen. It is, to be sure, necessary, for both eyes to see their respective pictures simultaneously. For this purpose a background is required which, to the right eye, appears white and to the left eye black.

This is provided by a sheet of glass, the back surface of which is prepared in a special manner, while the front surface is rubbed convexly, whereby the rays of light falling

upon this surface, are broken in such a way as to make it appear black or white, according as you look at it from one side or the other.

This really seems to solve the problem. The two transparencies are placed one upon the other and then both upon this background. The right eye seems only its proper image, and the left eye likewise. These combine automatically as is true of a stereoscope when used. The result is a truthful bas relief picture. These pictures or "stereographs" are well-nigh perfect.—*Dr. Leonard Keene Hirschberg.*

PROFESSIONAL PORTABLE PROJECTOR.

PROFESSIONAL theater equipment has reached a high degree of perfection. Motion pictures are established as a powerful factor in the education and entertainment of the public in general. The use of moving pictures has been confined to theaters, and at the same time there has developed a need for more universal use of the pictures for other purposes—teaching in schools and churches, for private entertainment, for selling and advertising goods.

Suitable film is already available, more is being produced, and special requirements are easily filled. The demand exists for more general application of the tremendous value of motion pictures

The people know quality of image. They expect and will only be satisfied with the life-size, brilliant picture they see in the theater, even if used at home, in the school or church.

The keynote of the success of the Victor Animatograph lies in its ability to produce the necessary brilliancy of image with a socket-attached arc lamp, drawing current from any incandescent lighting circuit. The instrument is instantaneously ready for work wherever electricity is available, and without the usual preparation of special wiring.

It is not necessary for the operator to possess any knowledge of motion picture apparatus or electric arc lamps. All lamp adjustments, except occasional feeding of the carbons, are permanent and require no attention.

The film magazines are held together in one unit, permitting threading of the film to the take-up reel before attaching to the machine. Threading the film through the sprockets requires not more than fifteen seconds.

The Victor mechanism will not tear, scratch, or in any way mutilate the film, but used film with missing sprocket holes and clumsy patches will pass through the gate without trouble.

The construction is all metal—aluminum and steel. The supporting legs are detachable and separable to allow compactness in transportation. The entire instrument is rigidly constructed of the best material, well finished, and designed for hard and continuous service. Write to Davenport, Iowa, for complete catalogue.

THE professional and advanced amateur for his exacting work has always given preference to the Focal Plane Camera. It, however, has been of such bulky construction as to be of great inconvenience in many instances to carry. If you have not seen the neat and compact Ensign Folding Reflecting Camera, we would advise you to see this model immediately. It is of the well-known Ensign construction, folds up very compactly, while when extended it is rigid and stiff as the Box Models.

The new Ensign Focal Plane Shutter is simple to operate and the shutter releases without any perceptible jar. If you have not received the new Ensign Catalogue for 1914, send to G. Gennert, 24 and 26 E. Thirteenth Street, New York; 320 S. Wabash Avenue, Chicago, Ill., and 682 Mission St., San Francisco, Cal., for copy, which will be mailed free of charge to readers of this magazine.

ANNOUNCEMENT.

"HOW TO MAKE A STUDIO PAY," by the well-known expert Frank Farrington, will be published early in September. No more important hand-book for the professional has been issued in recent years.

This will be an invaluable hand-book for every studio. Price only one dollar ($1.00) postpaid. All orders will receive prompt attention. Address this office for circular and further particulars.

CURRENT TOPICS IN LEADING PERIODICALS.

Astronomical Photography, May, *Photographic Journal.*

Crystalizing Effects of Chemicals, June 10th, *Bulletin.*

Dry Method to Improve Faulty Negatives, A, June, *Photo-Era.*

Etching in Portrait Photography, June, *Photo-Era.*

Enlarging Heads in Groups, June 12th, *British Journal.*

Field Camera Movements, May 15th, *British Journal.*

Focussing with Hand Cameras, June 5th, *British Journal.*

Groups, Indoors and Out, May 22d, *British Journal.*

How to Make a Stereograph, May, *Photographic Journal.*

Ideal Portrait Negative, The, June, *Photo-Era.*

Light Filters, June 1st, *Amateur Photographer.*

Manipulation of the Tripod, The, May 29th, *British Journal.*

Practical Hints on Toning and Mounting, June 12th, *British Journal.*

Success in One-Room Studios, May, *Camera Craft.*

F. & S. Professional Printer

HERE IS A PRINTER THAT WILL GIVE YOU THE SERVICE YOU HAVE BEEN LOOKING FOR

8 x 10
(without lamps)
$25.00

11 x 14
(without lamps)
$35.00

It is operated by a foot treadle, leaving both hands perfectly free to adjust paper and negatives. The two large folding leaves at the side afford ample room for paper, negatives and finished work.

Nine Mazda Lamps in three rows illuminate the printing surface, *and the current is on only during exposure.*

Let us send you a circular describing the F. & S. Professional Printer.

Folmer & Schwing Division,

EASTMAN KODAK CO. ROCHESTER, N. Y.

The best enlargement is the one most closely approaching a contact print.

ARTURA CARBON BLACK

Enlargements retain the contact quality.

ARTURA TRADE MARK

ARTURA DIVISION,
EASTMAN KODAK COMPANY,
ROCHESTER, N. Y.

All Dealer's.

JUL 30 1914

VOLUME LI NUMBER 8

WILSON'S Photographic Magazine

AN ILLUSTRATED MONTHLY
DEVOTED TO PHOTOGRAPHY
FOUNDED IN 1864

AUGUST · 1914

EDWARD L. WILSON CO. INC.
122 East 25th Street · New York

Think of Cyko and you think of photographic success

THE successful photographers are users of CYKO.

Most of the prize-winning pictures are made on CYKO.

The cheap amateur finisher who uses cheap papers, always keeps a little CYKO on hand for the customer "who knows."

The manufacturers of CYKO have won out against big odds in everything they have undertaken:

In making the best photo printing mediums.

In constructing the best cameras.

In producing the best film, and in protecting the inventor from film substitutes that have infringed his rights.

To think of CYKO is to think of success, of right against might, of the triumph of justice, and to think right is to do right.

Ansco Company

Binghamton, N. Y.

SELF PORTRAIT
BY ELIZABETH SCHLIEPMANN
ST. LOUIS, MO.

WILSON'S PHOTOGRAPHIC MAGAZINE

FOUNDED IN 1864 BY EDWARD L. WILSON

VOL. LI. AUGUST, 1914 No. 8

THE YOUNGER GENERATION

BY SIDNEY ALLEN

Illustrated by Elizabeth Schliepmann

DURING my lecturing tours I generally make it my business to visit the leading photographers of every town. In large cities like St. Louis, of course, I find it impossible to get around to all. Anyhow, I thought, that I was acquainted with all practitioners of prominence, and so one rainy day, when I accidentally strolled through one of the quiet streets of the west side, I was surprised by the large show-window, or rather the contents of the same, of a gallery that was entirely unknown to me. Some of the prints that accompany this article attracted my attention then and there. "Another newcomer," I said to myself, "and a woman, too; very promising, indeed. The women surely make wonderful headway in this profession." But another errand in my mind, I did not call at the studio, and only several weeks later at a banquet given to me by the Photographic Society of Missouri in my honor, I was introduced to the lady. In the run of conversation she invited me to see her work, and the next day I visited her studio.

This was remarkable, indeed, a girl of twenty-one running a studio, all by herself, carrying out the various duties of reception-room lady, operator, developer, printer and finisher, in one person, and doing really good work. There are hopes for the profession—if practitioners in this generation start in as early as that, and mind you, technically and artistically as well equipped as some of our advanced portraitists whom it took ten years or more to arrive at this pictorial viewpoint. For the work of this photographer is pictorial. It is picture-making plus portraiture.

How at her age did she get such sense of composition, such appreciation of

lighting and tonal feeling without losing detail. Well, she went through a regular apprenticeship, the one sane thing that is needed most in the profession. And she went for that purpose to perhaps the best man that was available, Rudolf Duhrkoop, at Berlin and stayed with him for two years. Then she returned, bought out a gallery and went to work.

Duhrkoop's activity is so well known in this country that it hardly needs any comments. His work is known principally for the variety of picturesque themes that he introduces into his portraits, for the artistic manipulation of concentrated light effects and the general charm of his execution and finish. There are no stereotype poses and attitudes, but always new ones. His pupil, up to the present, shows in her prints many of the characteristics of her teacher's work, no copyism or slavish imitation. Duhrkoop's methods are too inventive to permit it—but just a sympathetic appreciation of his faculties and manner of working. She pursues practically the same path that he does, and there is room for many on this road to a more conscientious and tasteful practice of portraiture.

Her studio in its equipment has the air of "home portraiture" about it, and I believe that it will eventually prove to her the best vehicle of expression.

Her prints all show an even, not too dark, tonality, with the exception of the print "Contrasts," where the different shapes of light and dark are so harsh that they interfere with each other. This no doubt was in the way of an experiment. Contrast is a very necessary adjunct in pictorial composition, it produces a suggestion of color and in that manner lends animation to a picture. We notice this in the portraits of "My Sister" and of herself, where in both instances the lace collar adds a note of virility to the entire composition. It is perhaps a trifle too white in the portrait of her sister, or rather the figure in that picture is treated in too opaque a fashion. The prominence of the collar and the clearness of the face would have permitted the introduction of much more detail.

Very interesting is the way in which Miss Schliepmann handles detail. She is not afraid of it, on the contrary she accentuates it; in a judicious manner, however, emphasizing merely a part of it and blurring the rest. Only when the

THE NEW GOWN
BY ELIZABETH SCHLIEPMANN

gown is the main object of delineation as in "The New Gown," she shows all details in a precise and sharp manner. In the "Russian Jewish Type," the "Self Portrait," and "Sister," we will find that only a very small area of the patterned material is emphasized, the rest is blurred. This, of course, is the work of the lens, but it takes cleverness and forethought to handle detail in such a Whistler-like manner.

Two excellent tonal compositions are the two portraits of the "Man With Pipe" and the old gentleman in the braided overcoat. Nothing jars, not even the light wrist of the old gentleman, nor does the scarf-pin in the other picture look too conspicuous, as it is balanced by the highlight on the nose. The tonality is clear yet soft and all details that are subdued or lost are so judiciously. Also the "Russian Jewish Type" is good in tonality. Apparently she never focusses directly on the face (with exception of the girl with the white bonnet), but on some interesting accessory nearby. All these portraits, however, show no contrast, and it seems to me that a clear definition as in her "Self Portrait," with an addition of contrasts, is more difficult to make and more satisfactory to look at than a mere tonal composition. Of course, a tonal feeling must also pervade these arrangements, or they become restless and spotty like her print "Contrasts," made two years ago shortly after the opening of her studio. The "Self Portrait" was made recently, and shows a wonderful step in advance. Only the frame behind the head, although most necessary as a part of the composition, is not sufficiently subdued and not placed to the best advantage.

If I were asked what the principal characteristic of these prints consists of, I would answer in the lighting. The lightest passages of light are nearly always to be found in one part of the picture and generally in the upper half. This system is carried out in standing and seated figures as well as in bust portraits, and has the merit of concentration which makes it possible to introduce tone and harmony without neglecting detail, contrast and accessories.

I do not believe that Miss Schliepmann, although very talented, is an exceptional case of development in these days. The younger generation has decidedly the advantage, not necessarily in the pursuit of study, as the person who wished to study always found or forced opportunities to do so. But study comes easier now. The materials and mediums of expressions have become more flexible. Demonstrators travel about, always eager to explain the technical mysteries of their particular ware (invariably a lesson even if one does not care to adopt their methods). Reproductions of the portraits of the Old Masters have been published

REFLECTIONS
BY ELIZABETH SCHLIEPMANN

at ridiculously low rates, various books on composition have been published and found a wide circulation, and the general pictorial appreciation in the public as well as the profession has considerably increased in number.

The beginner to-day can devote more energy to the pursuit of artistic and real aims than the practitioner of a decade ago. The infancy and childhood of photography belong to the past. We now want workers who can shoulder and

assume all the technical and artistic responsibilities of this wonderful medium of expression.

Miss Elizabeth Schliepmann is a true product of her time, wide-awake, gifted, really in love with her chosen profession, and trained in a thorough manner (and there is no method more thorough than the German), she no doubt will blaze her own trail and add her liberal share to the advancement and ever-increasing possibilities of photographic portraiture.

FLEXIBLE RUBY SCREENS FOR THE DARK ROOM

BY JAMES BULL

THE breaking of the ruby glass in the dark room, or cracking it by accident, will at times occur, then where there is not a piece of glass to take its place some improvised means is resorted to so that development may be completed. In most instances a folded orange-colored paper is resorted to as being the nearest approach to a safe illuminant as far as color is concerned for the general purposes of the dark room.

Flexible glass of any kind has not as yet been invented, but in place of glass a flexible color screen may be made and used with perfect safety, and any color, or combination of colors, may be used as may best serve the photographer's purpose.

This material will no doubt prove eventually of considerable convenience to the tourist, or to those who travel and are compelled to develop their plates or films before leaving the locality. Not only is flexibility obtained; there is considerable strength in addition, which will resist a great deal of handling, while the tearing of the material is entirely out of the question. The preparation of this invaluable material may be undertaken by anyone, as it consists mainly of gelatine held firmly with a metallic support. The method of making is as follows: The gelatine used must be of a very clear variety. Coignets' Silver Label will meet the requirement.

MIXTURE FOR THE FILM:

Clear gelatine	1 ounce
Water	10 ounces

Place the above in a clean bowl, let it soak for half an hour, to soften the gelatine. It may be allowed to stand for one hour to advantage, when the bowl may be placed into hot water and the contents stirred with a dessert spoon until the gelatine has completely dissolved. As soon as the gelatine has formed what may be considered a somewhat viscous glue-like mixture, add slowly, with rapid stirring, one ounce of alcohol. This will act as a preservative and aid the drying. A strip of the metallic mosquito netting, sold at every hardware store, must now be taken, cut to a convenient width. The gelatine being poured into a warm tray, the mosquito netting is now taken and drawn slowly through the gelatine when it is in a warm condition. The strip is then reversed, waved a few times in the air, or better still over a block of ice, when the gelatine will become completely set, forming myriads of little squares of transparent film, covering the whole of the netting. As soon as the gelatine has become well set, the strip must be passed through a bath of formalin, consisting of one ounce of formaldehyde in twenty ounces of water. By drawing through

this bath half a dozen times the strip may be pinned up in a cool place to dry, when the gelatine will become quite insoluble. All that has to be done now is to prepare a bath of analine dye (red ink may be used), of a deep ruby color, made by dissolving a small quantity of rosaniline in water and placing the dried strip (or it may be cut into pieces), into the dye. The gelatine will quickly absorb the color, when the strip or pieces may be suspended to dry by the use of a push pin, at one corner, against the edge of a board. As soon as the drying is complete the flexible ruby film will be ready for use. These films will dye any color, orange, or yellow, or a dark green. All these colors are suitable either separately or in combination for dark-room illumination.

The question may be asked, why not add the dye to the gelatine in the first place. This has been tried and does not answer the purpose. As soon as the dyed film is placed in the formalin, the dye becomes extracted, consequently the color becomes weakened, which would cause the illumination to be unsafe.

The alums do not answer the purpose, for should there be a trace left in the gelatine the color of the dye becomes changed. If it is found that the ruby dye in the gelatine film is too light in color, simply employ two or three thicknesses.

There are many uses to which this specially prepared wire netting might be used with its insoluble coating of gelatine. A good quality glue may also be used. In many places this pliable, non-inflammable material might be used in place of glass without the use of dyes of any kind. The prepared netting, it will be observed before the dye is applied, has the appearance of a celluloid coating by its transparency, depending upon its resistance to ignition, and its non-breakable quality it might be used for a wind shield in automobiles.

THE SUCCESS OF FAILURE

BY PHILALETHAN

"THE success of failure!" "A paradox," do you say? Yes, but not a contradiction. Success and failure are not mutually exclusive, like daylight and dark, heat and cold. They strangely act and react on each other. Did the apple blossom fail that withered and fell? Did the chisel fail that in chipping the wood was worn away by its own faithfulness? Did the rejected plates fail that the vision and dream of the sun artist might be realized and the picture of perfect likeness and beauty be released from its dark imprisonment? All these—blossom, chisel, imperfect plate—fulfilled their mission.

Life is a series of mistakes. Says a great writer: "He is not the best general who makes the fewest false steps. He is the best who wins the most splendid victories by the retrieval of mistakes. Forget mistakes. Organize victory out of mistakes." No man need be a failure. The ground may be stony—the season may be bad, competition may be keen—capital may be small, business may be dull. But if the man does his level best, and keeps right on he, at least, will not be a failure.

Character, after all, is the supreme reward of effort. Inward failure is the only calamity to be dreaded. Outward failure often proves to be the greatest possible blessing. The undeviating adherence to a high ideal of professional excellence will sooner or later turn what seemed to be failure into assured success. Failure has taught you something about yourself—your capacity, your limitation—your methods. Acknowledge

your mistakes. That will prove you a wiser man today than you were yesterday. Then you were wrong and did not know it. Now you know it, and, what is more, you purpose to remedy it.

If failure has taught you what were the pitfalls and hindrances in your way, and how to avoid them in the future—if it has taught you that manhood is worth more than money—that self-respect is preferable to superficial and transient popularity; that real artistic attainment is worth all it costs in patient, painstaking application; then you should welcome with a glad, full heart the lessons of so wise though stern a teacher.

"For thence a paradox,
Which comforts while it mocks,
Shall life succeed in that it seems to fail."

Well, may we all covet the courage to face unflinchingly our failures. The courage that "scorns to bend to mean devices for a sordid end."

Suppose that plans do miscarry—hopes wither, fortune fails in the outward realm of things. Be captain of your soul, maintain honor unsullied, ideals inviolate, integrity unassailable. Then, there can be no real—no lasting failure. Men may pity you. You may pity and reproach yourself—you may sometimes feel like quitting. *Don't!* Take a fresh grip and fight it out! Never give up the ship! Keep your colors nailed to the masthead! *And remember, that the only irreparable failure is to quit trying!*

A COOL STUDIO

A GLASS house is a veritable trap to catch heat, a fact of great advantage to the gardener, but at times awkward for the photographer. A restful coolness and (what is almost as necessary) an appearance of coolness is vital during summer. First and foremost, good ventilation is needed. The heat of an unventilated place is stagnant and depressing. Take a sitter into such a room and she wilts and tires. Where available, a number of windows should be open—the more windows the less chance of draughts. Whenever sitters are not actually in the studio, this is feasible, and often several windows may be open even when work is in progress. But a good blow through is only a part of ventilation. The quiet, automatic sifting of air through ventilators is needful at all times, for there are seasons in spring and fall—and in winter, too—when windows cannot be opened, but when unchanged air becomes as foul and stagnant as in the heat of summer.

Ventilation must be carried out with some attention to the methods of air. It is well known that if air is passing out from the top of a room it causes a draught under a door. The outgoing air, in short, must be replaced. If the door be sealed so that air cannot pass under it the room will grow stagnant in spite of the hole at the top. Air exhibits a disinclination to pass out and in by the same aperture. If a lath, or even a cord, be stretched across the hole to divide it in two, it will be found that a current of air starts. So with our ventilators, we need more than one; and several small ones work better than two larger ones. A row placed high in the slant and another row close to the floor will act best. It is commonly supposed that air comes in through the lower and passes through the upper ventilators. This is not necessarily so. Air does not float upwards in itself naturally; only when it is heated. In a room of stagnant air the flow may be downwards. It is possible to have a

pool of "bad" air either at the roof or the floor; and so it is advisable to have ventilators near each. A single window opened does little good. If opened top and bottom, a flow of air commences.

Fresh air attained, it is next necessary to have *suggestions* of coolness. A red-plush upholstered chair is an abomination on a blazing day. If such a chair is in use it might be temporarily covered with some calico wrapper in a good photographic cool color, or a chintz of quiet, unobtrusive pattern. A wicker chair is better, and sometimes a deck chair, or even a hammock, is better still, though both may be used for unsuitable people unless the photographer is careful. Artificial plants should be retired and cool-looking growing ones used instead. Some of the lilies which grow in china bowls containing only pebbles and water are excellent for this purpose. Light thin draperies sometimes help the effect.

The skylight frame is, of course, painted some light, cool shade. In some studios a little extra painting in cream or green or some such tint will help the general effect, as will a certain amount of shade. If the sitter passes from a dark dressing room into a bright studio, heat is at once suggested. If the dressing room is brightly lit and the studio screened, the suggestion will be coolness.

Water has a restful look, and it should be used. But water must be clean and clear, and a globe of goldfish is a pretty ornament, and as good as a toy when children are present.

Children, by the way, are thirsty little mortals, and often a fractious child is merely a thirsty one. A filter—one of those glass ones in which the drip, drip of the water may be watched—should be in every studio. A block or chips of ice floating in the water will ensure coolness.

In hot weather we are not content with fresh air; we must feel the flow of it. A few hand fans should be in every studio, either Japanese paper fans or palm leaves. The latter usually look better. And electric fans that do not buzz too much will send cool currents across the studio.

Last, there is the operator himself. I have visions of a terrible sight, seen a quarter of a century ago. It was an old-line "professor," with somewhat long hair streaming over the collar of a velveteen jacket. The day was a hot one, the studio stuffy, and the professor was mopping himself with a large brown-and-gold silk handkerchief. Poor little sitter! no wonder the child was fractious. There is no need for an operator to wear black, if it is not in keeping with the day. He should look cool and comfortable, even if he has to don white to do so. It is not what is but what seems.

THE PASSING OF THE CABINET PORTRAIT

FROM "THE PROFESSIONAL PHOTOGRAPHER"

THE post-card photograph has been the means of making some photographers happy, but it has made others very miserable. These opposite effects are produced by the different ways photographers approach the post-card. In some instances, it is taken up and worked profitably; in others, it is looked upon as beneath the dignity of the professional and is left alone.

Not many years ago photographers spent a lot of their time in trimming and mounting various assortments of little ovals, squares and circles. These tiny pictures were not only troublesome to produce, but were sold at ridiculously low prices. The post-card came along and swept away all those odds and ends of portraiture.

But the serious point is that while so

many professionals have turned their backs on the post-card, it has stealthily crept in and undermined the position of the cabinet portrait. This fact must be faced. All over the country good portraits are printed on post-cards and sold at prices ranging from 75c to $1.50 per dozen—and these post-card portraits are placed alongside your cabinets, for which you demand something between $3.00 and $5.00 per dozen. You are expecting too much from the public when you ask them to believe that there is from $2.00 to $4.50 worth of difference between a dozen good post-cards and a dozen good cabinets. The public compare the size and price of the post-card with the size and price of the cabinet—and the cabinet cannot hold its own.

How is this difficulty to be met? One of two things must happen: either the post-card must go, or the cabinet must be replaced by a larger picture. It is of no use mincing matters; the post-card and the cabinet cannot live together. Nothing will move the post-card. It has not merely pitched a tent; it has built a house and come to stay. There are thousands of people who cannot afford to pay more than the post-card price, any more than they could afford to buy cabinets in the days of small ovals, squares and circles. The only way then, is to recognize the post-card, and to forget the cabinet. In place of the cabinet, supply a larger picture—one that could not possibly be mistaken for one of your post-cards pasted on a larger mount. Get as far away as you can from the cheap post-card picture; so that while you show a post-card at $1.00, your $5.00 work looks worth the extra $4.00.

Remember, that the public frequently have not the technical knowledge of photography that you have, and that size and general appearance are often the only qualities that are considered when the question of price is involved.

When you make these changes you will be astonished to find what a large number of people want the better picture. Moreover, you will feel satisfied that when you deliver your work there will not be disagreeable comparisons made in regard to price. You will be giving not only quality but value and style as well; and these three spell the word "success."

SUMMER HINTS

BY PERCY J. SLATER

IN very hot weather it is essential to keep all solutions as cool as possible, and of one even temperature. If this precaution be neglected there is a risk of frilling, even with the most reliable plates. The development solutions are, as a rule, considerably warmer than the washing water, and to bring both to one even temperature is a simple matter. A supply of water should be drawn off in a deep dish or other suitable vessel, and the bottles of solution be allowed to stand in this until their contents have become sufficiently cool. If necessary the water should be changed two or three times. The dishes and graduated measures may also be cooled by filling them with some of the water.

It is always inadvisable to use a fixing bath sooner than an hour or more after it has been mixed, but this is particularly important in very hot weather. The dissolving of the hypo very greatly reduces the temperature of the solution, and to plunge a plate into this after it has been developed in a much warmer solution, is almost certain to produce frilling. It is far better to develop, fix, and wash the plate in comparatively warm solutions of one even temperature, than to transfer it

from a warm to a cold solution, or vice versa. Do not use too strong a fixing bath—6 ounces of hypo in 20 ounces of water is ample during hot weather.

It is an excellent plan to keep the proportion of soda in the developer as low as possible in very warm weather. Use the No. 2 solution sparingly—half the normal quantity is generally sufficient to develop the plate, and in this way any danger of frilling is much reduced.

It is most important to have the dark room properly ventilated. The source of light should be placed outside the room, if possible; the ruby light-filter may be fixed in a window, or a hole may be specially cut in the wall. This will be of great help in keeping the room cool. If an oil lamp is used in the room, it often smokes and smells in hot weather, while candles gutter and run. Although sometimes condemned, there is no doubt that daylight—if properly filtered through good ruby glass, and a thickness or two of ruby and canary fabric, according to the brilliancy of the light—has much in its favor. It does not consume the oxygen, nor heat the room, as oil or gas lamps do, and its only disadvantage is its variableness. This, however, is no serious drawback when one has mastered the idiosyncrasies of the plates one uses, as it is easy to judge when development is complete by examining the front and the back of the plate.

The toning of P.O.P. seems to present difficulties to many workers during very hot weather. When placed in the toning bath, the prints appear to tone very quickly on the surface. If they are then withdrawn and fixed, they have a sickly yellow appearance—the result of their being insufficiently toned.

The tone should be judged by looking through the prints, and not by examining their surface.

The salt and alum bath previous to toning should never be omitted, as it hardens the film, and this is especially necessary when the washing water is warm. If the weather is very hot, and it is intended to squeegee the prints, I use another alum bath after the hypo has been eliminated, and then give the prints a further short washing. The final washing must not be too prolonged in hot weather. An hour's washing in many changes is ample when the washing water is warm. The prints should be well dried, and then wetted again for about a minute before they are squeegeed onto the polished glass; they will afterwards leave the glass without any difficulty.

Bromide paper may be advantageously passed through an alum bath, after the final washing, to harden the film, and then be washed again for a short time.—*Photographic Scraps.*

MODERN STYLE IN PORTRAITURE

FROM "THE PROFESSIONAL PHOTOGRAPHER"

IF you want fully to realize how style changes in portraiture, look over some of your own work that you did ten years ago, and compare it with what you are doing now. Of course, if you work in a groove and do not alter your methods with the changes in public taste, you will see no difference in your work. But, assuming that you move with the times, you will notice that the work you do today is of a totally different character from the work which you did ten years ago.

What are the points of difference? Ten years ago you worked in a low key, you produced portraits with larger masses of shadow. A certain heaviness pervaded your work; and unless you were an expert in the control of tone-values, this heaviness gave your work a gloomy, funereal aspect. You mounted your heavy-looking prints on dark, thick,

heavy mounts—you framed them in dark, broad, heavy frames—you displayed them in a window, or show-case, draped with a dark, gloomy, heavy material.

Now look at the kind of work you are doing to-day. Your portraits are all in a high key. There is as much light in the pictures you take now, as there was shadow in those you took ten years ago. Instead of a gloomy heaviness, a cheerful brightness runs through your work. You use lighter mounts, lighter frames, and your window or show-case is draped with a bright, cheerful-looking material. The kind of work you did ten years ago will not do to-day. The public wanted a change, and, wanting a change, they demanded it—and got it.

It does not follow from this that the low-keyed portraiture was bad, and that the high-keyed work, so fashionable to-day, is good. One does not say that a contralto is bad and a soprano is good; some people prefer to hear the one sing, and some the other, and most people derive pleasure from hearing either. A photographer can do good work in the old style as well as in the new, but, if he wants to sell his work, he must watch the public taste as closely as a dressmaker watches the changes in fashion. The man who looks ahead sees the first signs of a change. He doesn't wait for its coming; he goes out to meet it.

The light, sketchy, high-keyed style of portraiture is the kind of photography that pays to-day. There is a demand for light—light pictures, light mounts and light frames. The pendulum has swung from the other extreme. Already there are signs of a further development in this new style of photography. Portraits are being made in the studio with a stream of real sunlight falling upon the sitter. The effects are striking, and, in some cases, very pleasing.

The man in the groove thinks this is only a passing fashion, a craze, or a fad. Well, perhaps it is. But why not make money out of it while it lasts?

THE RECIPROCAL VALUE OF A SIGNED STATEMENT

GOOD credit in the markets of the world enables every merchant to add to his ability to do business. It gives him the use of enlarged capital, thus enabling him to carry a more complete stock, increase his sales, and magnify his profits.

Large assets are not always necessary to the creation of credit; what is most desirable is, that credit be in proportion to the actual assets and in harmony with conditions which create and maintain it. A merchant's capital is the sum of his net available resources plus his credit.

Study your work so as to constantly make it quicker, safer, and better. Go to your chiefs with suggestions for the improvement of the service.

Misrepresentation may sell goods, but it never will make customers. The first sale it succeeds in making will be the last one so far as that particular customer and his friends are concerned. The world may like to be humbugged, but not more than once at the same place or in the same way.

Not one little mental acquirement will be more valuable to you than a memory for names and faces.

It ought to be extremely difficult to prove that your interests are not identical with those of your employer.

SEVEN PRINTS

BY

ELIZABETH SCHLIEPMANN

ST. LOUIS, MO.

ILLUSTRATING

"THE YOUNGER GENERATION"

BY SIDNEY ALLEN

"MY SISTER"
BY ELIZABETH SCHLIEPMANN
ST. LOUIS, MO.

"RUSSIAN JEWISH TYPE"
BY ELIZABETH SCHLIEPMANN
ST. LOUIS, MO.

PORTRAIT
BY ELIZABETH SCHLIEPMANN
ST. LOUIS, MO.

PORTRAIT
BY ELIZABETH SCHLIEPMANN
ST. LOUIS, MO.

"CONTRASTS"
BY ELIZABETH SCHLIEPMANN
ST. LOUIS, MO.

"MAN WITH PIPE"
BY ELIZABETH SCHLEIPMANN
ST. LOUIS, MO,

PHOTOGRAPHY AS A FACTOR IN EDUCATION

BY TEMPLE SCOTT

BY education, I do not mean the training of the individual for fitting him for the practice of a vocation. That is not education, but a training of the faculties for a special purpose—the purpose of making a living, as it is called. A totally uneducated person may be a very successful business man, and make a fortune; but a totally uneducated person will never know how to make life liveable, which is what education should help him to know. To make life liveable the soul must be emancipated, and there is but one way to emancipate the soul, and that is, by educating it—by leading it into the light where it may grow and function for itself. Education, in the sense I mean, is the cultivation of the faculties of the mind so that these may function freely in whatsoever direction they may later be applied. Such education is for no special purpose other than the enhancement of the total man, or, as we might say, the accomplishment of his spiritual powers. And until such emancipation and enhancement are obtained we waste our lives—the lives of the teachers as well as the lives of the taught—in training for vocations. No one is fit for a vocation until he can think for himself; and no one deserves to make a living until he realizes, in its fulness, the meaning of the gift of life.

The present age is a vocation-training age. Our schools and colleges are, more and more, being given up to the work of fitting their scholars for businesses, trades, professions and other money-making activities. These institutions are rapidly developing into training-places for working-men soldiers for the national industrial army, in which each soldier shall be fit for the task of producing things that have a market value. So that the nation as a whole is becoming a gigantic machine for satisfying the so-called economic law of supply and demand. What will happen to the individual members of this industrial army when there are more engineers, electricians, architects, doctors, lawyers, machinists, book-keepers, bankers and the rest, than are necessary, is a question which is not disturbing us at the moment. The immediate necessity for making a living is so demanding, and the struggle for existence is so keen, that we brush aside such a question as being far from the point, or as smacking too much of idealism, for us to waste our time with. Let us educate our children, we say, for the immediate, crying need, and let us fit them to fight the battle of life.

Well, as a means for fighting the battle of life, the "business of photography is not to be despised. The law of supply and demand works in this field as it does in every other, under our present economic system; and so long as people ask for photographs so long will there be photographers to supply the articles, and so long will photography be accepted as a factor in vocational training. Furthermore, since the invention of the cinematograph and the remarkable improvement made in it of late, the vocational side of photography has opened itself to an almost limitless extent. There is no saying to where this side of it may not lead. Indeed, the moving-picture machine is already being employed in directions where, at one time, it would have seemed foolish to predict for it. Children are being taught the mysteries of science by it; the drama is taking on a new expression by means of it; the galleries of the world are being brought into our homes and we are

placed in living relation with their treasures of art, through it. With the cinematograph we go touring the world and are brought in delightful acquaintance with its natural and man-made wonders everywhere. History is made to live again, and even the creations of the novelist's imagination are almost magically realized in pictorial actuality.

But there is another side to this business. The professional photographer is being sadly put to it to keep his head above water. The "kodak" in the hands of the amateur supplies now many of the demands once made for portraits. And there are "portraitists" without number in every town, pushing each other aside competing for patrons. Already the "profession" or the business of the photographer is somewhat overcrowded. The struggle for existence, on this plane, is become very keen, and the fight in the battle of life a very bitter one.

Then, take the "moving-picture" business The business-trained eye saw in this machine a veritable Aladdin's lamp or a Pied Piper's magic pipe, which had only to be rubbed and the genii would come with bags of gold, or had but to be played on never so lightly, and the people would flock flinging their dollars. The business-man seized on it immediately and now we have factories reeling out daily miles on miles of films, and rereeling them, prestissimo, to the tunes of "Yankee Doodle," "The Marseillaise," "Rule Britannia" and all the other national and patriotic songs. The speculator and the gambler and the racetrack tout have been "educated" in the vocational use of photography to the end that they are making fortunes out of prize-fight exhibitions, criminal trials, baseball games and the rest of those public shows which set the stupidly curious and the ignorant complacent yelling in mad frenzy. Thus is "business" made to use the teaching of science to degrade our minds, even as it has been used to adulterate our food.

What is the reason for all this? The answer is simply that this is not education but the prostitution of education. We are training our children to make money, first, last and all the time. And children who are trained primarily to make money may become good fighters and slayers of their fellow-men, but they will never be good livers and lovers of their fellow-men. It is a grave mistake we make, and especially is it a mistake in the field of photography. Photography does not easily lend itself to being forged into a weapon for fighting the battle of life. It no more lends itself for this purpose than does painting or poetry or mathematics or the classics or philosophy. When so used these studies are removed from the sphere of education and taken to the sphere of the workshop and the armory. Photography is essentially a means for exercising the imagination through the eye; and the imagination is the most precious power any man possesses. Without the imagination, indeed, life would scarcely be worth living. The imagination is the light of human life, and that light must be kept shining purely, never flickeringly or doubtfully:

> "If the sun and moon should doubt,
> They'd immediately go out."

Armed with a camera the photographer finds himself face to face with nature. What is the first thing he does? He begins by selecting, thus taking the initial step to self-expression. But he cannot go very far, since he is limited to nature herself. Unlike the artist in pigments or the musician, or the poet, he is not free to use the material of his own visions, but must be content with what is presented to him in the world that is without him. This existing outer world, however, is so rich that his relationship with it must inevitably enrich him. He cannot come into intimate acquaintance with nature without finding that he has gained; and his gain will be the greater, even to the extent of personal enhancement, in proportion to his sincerity in this relationship. In other words, his study of nature will form the groundwork on which his imagination will build its own creations. No amount of photographing will make a photographer an artist in the sense of being a creator. He must always accept what nature presents to him. And if he be wise he will rest content with that in the exercise of

his art. But his exercise with the camera will, if done in sincerity and enthusiasm, so react on him that he will see visions for himself. And to be able to do that is to be educated.

I would, therefore, advocate the teaching of photography in schools, not as an end in itself, but as a means to an end—the end being the cultivation of the imagination. To professionalize photography by making it a vocation is all very well; but there is time enough for vocation training after we have cultivated the mind and set the imagination free. Why is it that most artists are mere copyists and sordid drudges? Is it not because they set themselves too early to the study of art as a business? Is it not because they have held the dollar so close to their eyes that they cut off the beauty of landscape and sky from their field of sight. "Shall painting," asked William Blake in righteous indignation, "be confined to the sordid drudgery of facsimile representations of merely mortal and perishing substances, and not be, as poetry and music are, elevated into its own proper sphere of invention and visionary conception? No; it shall not be so! Painting, as well as poetry and music, exists and exults in immortal thoughts."

Here then is the true end of education—the cultivation of immortal thoughts; and the artist, who is concerned primarily for the selling of his paintings, cannot possess the soul from which immortal thoughts will blossom and flower. The realizer of great visions will, therefore, remain a poor man so long as our children are not made acquainted with the nature of great visions, and so long as they are taught to set more store on mortal dollars than on immortal thoughts.

If, it be asked, how can photography produce immortal thoughts, I answer, in the same way that all true education produces them—by employing it to bring about a sincere and even passionate relationship with nature, from whence springs all that we understand as the true and the beautiful. Through the sincerity of this relationship the child's nature will grow in sincerity, and through its unselfish passion it will learn the wisdom of working honestly. A sunrise or a sunset, a spring landscape rain-washed, a mountain cloud-capped or mist-enshrouded, a face or a figure sorrow-stricken or radiating happiness; these are not merely objects for the camera to fix, but, rightly understood, they are living things to hold communion with. In their continual companionship we grow in purity. In this sense, the photographer is an adventurer in search of treasure—the rare treasure that lies hidden in every evanescent tint and tone of flushing cloud and in every fleeting change of human countenance, and in the influence of these on himself. It is not the thing but the thinker, not the object found but the seeker, that matters in this enterprise; for treasure does not benefit itself but the treasure finder. He it is who is enriched and enhanced; and that is or should be the end of all education. Any other education is not a leading out into light, but a crushing down into utter darkness.

To labor for making money only is to serve a master—the buyer who is to be satisfied before he will give his money for the article made, and he knows not what he wants. But to use photography as one of the means by which to educate the faculties of the mind so that these may be awakened to the mysterious and wonderful influence of the pageantry of nature, that is to be liberated from all service but the one splendid service to one's own high demands. This side of photography has scarcely been appreciated. We were so quick to see the money-making side of it, that we missed entirely its educating side, which is of far greater importance. Let us teach our children in schools, not merely the use of the kodak or the camera, but the spirit in which these should be used, and I shall be much surprised if we do not find them far quicker and brighter and saner as students and citizens. So important a factor do I consider photography in education that I would advocate its teaching even in grammar schools, from the sixth grade up. Once the mechanical preliminaries are mastered the pupils should be encouraged

in out-door excursions the results of which should be brought to the teacher for comment and criticism. Here the genius of the teacher will come into play, and if he be the right kind of a teacher, he will throw on the screen the photographs of the pupils to be discussed. Then, with all the children listening to him, he will hold them entranced with his own visions and gently lead them with him to Pisgah-heights so that they may view for themselves the beautiful Promised Land. Indeed, we may not set bounds to such a teacher's influence, for he would have the whole of life to talk about—the outer life of the world of nature, and the inner life of the child's soul. For by permitting them full freedom of choice of subjects the children, in bringing their photographs, are also bringing the best of themselves; so that the teacher looking at the pictures, will, if he has the eyes, see the hearts of the children also. And he must have the eyes, and a fine heart too, or he must not teach. It will be a part of his teaching to inspire his pupils; to tell them of the achievements of other great adventurers, and to enlist them in a passionate enthusiasm not, for the making of photographs, but for doing the best one knows for the sake of doing it perfectly. He must be most careful not to make the teaching or the criticism an end in itself. Photography, as I have said, is not an end, but a means—the end being the enhancement of the child's mind. It is, perhaps, the most valuable means we have at our command by which to bring children into direct communion with nature in all her wonder-working moods. But the communion must be understood as being but one step on the road of education, the end of which is the cultivation of the imagination for self-expression. The mind of man is essentially creative in its functions, and we are surely killing this power by training our children too early for vocations in which there is no need for other than mechanical exercises, and in which the imagination is never called into play. This is to doom them to automatism and an animal existence. We do well to talk of "the industrial army" and "the battle of life." The system which leaves no room for the divine power of the imagination demands fighting brutes, and we are lamentably foolish in descanting about art and poetry when our schools are filling the cities with creeping things busied only in looking for the next mouthful of grass. Surely this system is a pernicious one! What is our so-called "progress" if it is not an evolution to a wiser and nobler mode of life? Armies and battles spell death, not life, and it is life that we are seeking, not death. How shall we find it? There is but one way—by cultivating our power to see visions; for only thus are we able to grow wiser and nobler.

"When the sun and moon rises," Blake asked himself, "do you not see a round disc of fire somewhat like a guinea? Oh! no, no, no!" he replied, "I see an innumerable company of the Heavenly host, crying, 'Holy, holy, holy is the Lord God Almighty!'"

When the child shall have learned how to look faithfully and lovingly on field and sky and sea and human face, he also will see beyond these the visions of his creative imagination. He may then drown his book and bury his instrument, for he will have found the reason for his own existence. He will have no need for either camera or teacher, for he will have realized that life is not a battle, but an experience of joy in realizing his thoughts. And this experience will come to him because of his enlightenment and because of his power of self-expression.

WORKING THE PUBLICATIONS WITH A SMALL CAMERA

BY JOHN E. TAYLOR

ENERGY in all walks of life is expended fruitlessly a great many times. This is true also in all business and it is too true in the use of the camera. Many people nowadays own cameras and get a great deal of pleasure from them and spend a lot of money without getting much satisfaction. This is true because they do not know how to shoot their cameras with the best results. Some shoot to take in vast areas with no special result. Others do not calculate on the particular object that they are shooting at.

My aim is in this story to tell how I have made my miniature folding camera pay and bring me an income and a great deal of pleasure. I take a great many snap-shots, but I aim to get subjects that not only have a personal interest, but a universal interest because of the subject. I find by doing this I have a fine collection of negatives and am able to sell them to various publications.

If a person is so inclined he or she can sell practically all the products of the camera. There is hardly a publication that does not like prints. There are a great many of them that can not get all they wish. Every business has a trade journal and every one of these journals likes pictures illustrating some phase of the business. A concrete and cement journal is anxious to get illustrations of the successful use of cement. Nearly every farm magazine is anxious to get photographs of various branches of farming; a good flock of sheep; examples of good farm buildings; pictures of some handy tool, etc.

There is hardly a newspaper in any locality that does not like pictures of pet dogs, cats and various domestic animals, trained animals, pictures of boys and girls that may be doing something a little different from some other boy or girl. They also like pictures of family groups, school anniversary pictures, snap-shots of people who are to celebrate a birthday or wedding anniversary, four or five generation families, freaks of nature, such as a peculiar growth of a tree, animal or plant, pictures of aged people who have unusual characteristics or have done something remarkable, new public buildings, etc.

Now, all these that I have mentioned can be taken with a small camera. After one finds a subject the rest is easy. He can take the picture and send it to a newspaper, writing on the back of the print what it is. The newspaper then will either send some one to get a story or will write to the person sending the print to send a more complete story, but my advice is for a person sending a print to find out all the peculiarities of the subject and everything that will make an interesting story, put it into readable form and send it with the print, stating in a letter that if the matter is available, pay according to the regular price of the publication and if not available to return. Always enclose a stamped envelope or sufficient postage for the return of the print and manuscript.

Four years ago I had never used a camera. At that time I bought a small box-camera and began to shoot everything that I saw with no special satisfaction. One day I was looking into a Western paper when I saw an announcement of a prize to be offered for the best picture of some freak of nature. I happened to remember seeing a tree that several years ago had been tied into double knots. This was a curiosity to the locality that I was in and I drove into the country where it was and made a snap-shot of it.

I sent it to the Western paper and received second prize on it in a competition of about two hundred contestants.

There are a thousand and one various subjects that one may get pictures of for publication. It requires only a little observation and an interest in that kind of work. In every small community there are many things that can be snap-shotted and may mean money to the person doing it. A small community is better sometimes than a large city, for in these smaller places newspaper men have not covered the ground, whereas in a city most things have been considered. I live in a town of about 6,000 inhabitants. I now devote my entire time to making money with my camera and what writing I do. There are only two or three people that are drawing salaries in the town that make as much in the year by their work as I do. I have been at the business about four years and find now that each day I learn something new about the use of the camera to bring in a little more money.

OBTAINING A PERFECT BALANCE

BY FELIX RAYMER

THERE has been much said about the proper manner of working "such and such" a light, and possibly I have said as much on that subject as any one else. But it seems to me that the main thing to get straightened out in one's mind is what it takes to constitute an artistic lighting. It is not the working of any light that plays such an important part in the making of a certain picture as it is the makeup of a certain lighting and wherein that particular effect of light and shade is artistic and wherein another effect is a failure. We do not understand what it takes to make one artistic and the other inartistic. If we ask an operator what he looks upon as being a perfectly lighted face, and how the negative should appear, he will very likely tell us something that is different from all other opinions along these lines that it has been our fortune to hear—or at least we imagine it is different. One man will go to some length in telling how he works his light to get certain results, and another will take the same amount of time in explaining his method, and after all is said and done we are no wiser than in the beginning. I have said much along this line myself, and sometimes I think I had as well never said it, for it seems to me, after having had time to think over the matter thoroughly, that we have had the cart before the horse for many years. What should be done is not to have mathematical calculations handed down to the student for working a certain light, but to give him an education in what a certain lighting is and from whence it derives its value. Every lighting has a different value from all other lightings. This being so, it is best for the student to arrive at the value of a certain lighting, so that he may know just where to use it. It would be a matter of educational advantage to all school children if the art of photography was taught in the public schools. We are taught drawing in these schools, and I doubt if there is one in fifty that can draw a straight line after coming out of the school. Wherein is the benefit of the teaching if it cannot be put in practice? But if the child were taught lighting and shading from a window, so that he could tell roundness and distinguish the proper valuation of certain effects of light as it falls on certain colors, the knowledge would remain with him during his entire life.

This, I think, is where the operator often falls down. He does not know what it takes to make a perfect lighting and does not know why one lighting

is more pleasing than another. It is a well-known fact that we can hardly find two operators who will agree on lighting, or the manner in which it should be made, before the negative is exposed. But it is equally well known that after the exposure and the pictures are made the work of one cannot be told from the other so far as merit is concerned. Now, why are these things so? It is, as I see it, nothing more than a matter of balancing certain conditions so that certain results may be obtained.

First of all, there must be a clear understanding as to what we want to see in the finished picture. There must be roundness to the head, for the head is more or less round. If we have a flat effect there cannot be a fair representation of Nature as we see her. When we look our friends in the face, we see that the head has a round effect, as though it were receding from us. We can see those parts that are nearer to us better than we can the parts that are farther from us. Thus we have perspective and the perspective aids in giving roundness.

Next we must have vigor, or life. To get this, it is an absolute necessity that we have light and shade. If we use only lights and the entire head is enveloped in light, there is a blankness that is anything but pleasing. Thus we lose the life of the picture. Life is secured by contrasts. There must be something to give this life, and the only thing we have for that purpose is to play shadow against light, using the two in proportion to their needs. The more light the less vigor, and of course the more shadow the more vigor, so long as the two are in contrast with each other.

Next, and last, and the one that controls the entire picture, is *flesh*. It is here that the success of the picture hinges. If there is flesh all through the entire composition, there will likely be roundness and vigor. But an absence of flesh in the picture destroys the idea of the picture.

Now to secure this flesh appearance in the picture is the effort of all operators and yet all will go at it differently. It has been my observation that there is a wonderful latitude in working for the flesh tints, as they are called, and that all operators will be safe if they stay within the limits of this latitude, which to my mind is ample. If the idea is followed of having the highest light in the face as strong as it can be made without losing the flesh tints in it, and the deepest shadow as deep as it can be made without losing the detail in it, the lighting will be correct, so far as color value is concerned, and anywhere within these extremes will be correct. We may lower the tone of the highlights many degrees and still have good value to them, or we may raise the tone of the shadows many degrees and still have the proper value to them. It is this difference of degrees that causes so many operators to differ in the making of the lightings. One has a certain degree of intensity fixed in his mind, and if it goes above that degree he thinks it too harsh, or if it goes below that degree he thinks it too flat. So it is with all other operators. We have a certain degree of intensity fixed in our minds and we work to that degree at all times. If we see another operator making up a lighting, if he hits our degree of light he is all right in our opinion, but if he misses it, we think he had better take a few lessons in making lightings. But we fail to take into consideration that, after all, these lightings have to be brought to a balance somewhere and that there are other places to bring them to a balance than the operating room. We must not overlook the dark-room, for here a negative may be changed altogether, and often it is far different from what we expected to see when the exposure was made.

It is argued pro and con as to the advisability of having ground glass or clear glass in the skylight. This is a thing that can be controlled in any dark-room and I venture to say that I can work under a clear glass light for a week and then go under a ground glass light, and at the end of my week there compare the work and no man can tell where either set of negatives was made. First of all, I will have the degree of intensity fixed in my mind, and will work toward that end and will not be satisfied until

I have the work showing it. As soon as I get it, it will be the same in the work under one light that it was under the other.

Under the clear light the high lights will be much brighter, and more concentrated, but if they reach the point where I lose the flesh tints in them I would use a head screen, over the head, and thus tone them down until the flesh could be seen. If one head screen was not enough I would use two. The main idea is to get flesh, and as soon as I had that it would be the same as if made under the ground glass light. In addition to this and to make my shadows luminous, as they would be in the work done under the ground glass, I should use a weaker developer. That is, it would be weaker in the developing agent and more dilute. This would have a tendency to soften the shadows, giving the detail that is necessary to them. It will be remembered that we were to have the detail in the shadows.

Now if we are working under the ground glass light, the head screens will not be needed, for that is what the ground glass is for. It has the softening effect on the high lights and will tone them down so that detail or flesh can be seen through them. In fact it is often the case that I find they are too low in tone, and I have to use a different developer from that used under the clear glass. I nearly always use the developer stronger in the agent and less water.

Thus it will be seen that it is a case of balancing. It is so with all operators that understand what it takes to make a good lighting. First of all they have a certain effect fixed in their minds which for want of a better name we have called a degree of intensity. This degree of intensity is confined within the limits I have mentioned. The highest light may be as strong as one can make it without losing the flesh tints and the deepest shadow may be as low as one can make it without losing the detail. Anywhere within these extremes the degree of intensity will be in perfect accord with our preconceived ideas of a perfect scale of light ranging from *almost* white down to *almost* black. But never should the absolute white and black be reached. So the natural deduction, after arriving at this stage of the proceedings, is that if we have a light that has a natural tendency to work with great contrast, such as a narrow light, a window, or a clear glass light, the effects secured under it should be balanced in the dark-room. If the light has a natural tendency toward flatness, such as a large double-slant ground glass, it should be balanced in the dark-room also. Of course, the balancing will have to be different for each of the lights. But first know what degree of light you want and then do the balancing afterwards.

It is more of a disgrace to be indolent than to lack ability.

It is in bad taste and a sign of weakness if you boast of your ability or your wares.

There are better ways of making your goods known than by boasting.

Think success, and talk success and if it has not already knocked at your door it is bound to come.

It is foolish to shirk your work as your moral responsibilities. These are both obligations that you are expected to meet like a man.

If you want to succeed look ahead and prepare youself for the places ahead of you.

Don't think nature is partial. She selects those that can answer her undertakings best.

MATT AND GLAZED PORTRAITS BY THE CARBON PROCESS

BY GEORGE SMEE

MAKING carbon portraits in 5 x 7 or 6 x 8 sizes by the usual double transfer process, employing a flexible support to develop the prints upon, always gives a dull or semi-matt appearance but not a complete matt surface, one that should give no semblance of gloss.

By a slight manipulation of the Lambertype process a matt surface can be obtained, and, as two methods are available, I shall describe them as used in my general practice, which may prove of service to other photographers. The whole process of carbon printing will not be gone into here, because it is assumed that the readers of WILSON'S are acquainted with the process.

The formula for the sensitizing solution is given, owing to its having answered well for the purpose, therefore it can be depended upon for all the usual kind of work in demand for good ordinary negatives, and as the tissue when sensitized with it will dry, and be fit for use in less than four hours, oftentimes it will dry in less than two hours, which in cases of hurry-up orders gives an advantage.

Sensitizer.

Warm water	50 ozs.
Potassium bichromate (powdered)	3 ozs.
Ammonium carbonate	1 dr.
When cold add alcohol	20 ozs.

The sensitizer must now be filtered and kept in a covered stoneware jar or a wide-mouthed brown colored glass bottle, when it will be ready at any time for sensitizing the tissue.

Preparing the Plates for Matt Development.

The best kind of plate to form the matt surface is the fine emery ground glass such as is used for focusing screens of the camera or emery ground opal glass plates, although the latter are more expensive than the former, an advantage is gained by the use of these in enabling the exact quality of the portrait to be easily seen before the final transfer, while in the case of the camera screen plate some practice is required to decide at a glance by reflection from a dead white surface the correct depth for a finished print. This is not a difficult matter; it is simply acquired by practice.

The plates which may be 5x7 are washed in warm water, to which a piece of carbonate of ammonia has been added, about the size of a walnut, in half a gallon of water, has been found to answer the purpose, this will remove any greasy finger-marks or adhering dirt without injury to the hands. The plate while still wet must be rinsed in a stream of water and placed in an ordinary negative rack until dry.

Stripping Medium.

Pure white wax	15 grains
Ether (sulphuric)	5 ozs.
Pure benzole	½ oz.

A small quantity of this must be rubbed over the ground surface of the plate, and polished off with light rubbing. Treat all the plates required for the work with this stripping medium and coat them with the following collodion, and as each one is coated place it into a grooved washing tank of cold water.

Film Collodion.

Alcohol (pure)	5 ozs.
Soluble cotton	50 grains
Ether (sulphuric)	5 ozs.

This collodion must be filtered, to sepa-

rate any cotton fiber, or if time permits, let it stand undisturbed for a week, and pour off the clear portion for use.

The tissue of any appropriate color, having been exposed, may now be steeped in cold water until it lies flat. One of the prepared plates is now slipped beneath the tissue, the two are lifted together, and brought into complete contrast by the use of the squeegee.

In the course of half an hour development in hot water may be proceeded with. As soon as the development is completed the plate must be washed in a stream of cold water, treated with the usual 5% alum bath, washed again and dried. The remainder of the process being the same as for double transfer, the prepared paper for the final support being softened in hot water, the dried plate having been allowed to soak in cold water for half an hour, the two are squeezed together and allowed to become quite dry. The print is now separated from the glass plate by the insertion of the top of a penknife at one corner, and lifted off, when it will be found to possess the exact matt surface of the plate.

If glazed prints are wanted all that one has to do is to use polished plate instead of the ground variety, all the other operations being the same, when a print possessing a very fine transparent gloss will result. The employment of grained zinc plates has been advocated by some workers. The use of these is not advised, for should they at any time become scratched, in the routine of general work, they are then irreparably ruined and cannot be utilized again, while glass, either the kind used for focusing screens or finely ground opal, possess no such objection. The only objection that can be urged against the use of glass as a temporary support is its liability to breakage. With careful handling this forms a very remote objection and should it occur in many instances a 4x5 plate can be cut from a 5x7 and still be brought into use. If a print made as described should prove to be a little too weak, it can be easily intensified and utilized by using this intensifier.

Intensifier for Carbon Prints.

Potassium permanganate	100 grains
Water	5 ozs.

Immerse the plate, watch the depth of color, as soon as this is reached, remove the plate, wash it well, dry, and follow with the transfer paper in the same manner as for the others.

The collodion film described will form a good protective coating to the print, either for the matt or glossy surface. The following process which is the second way of securing a matt surface, can also be employed successfully, only in this case the use of rosin and beeswax is necessary, the plate being rubbed over with talcum powder in the first operation and finished with the wax solution described.

Resinized Solution.

Yellow rosin	50 grains
Pure beeswax (use no imitation)	50 grains
Benzole	5 ozs.
Spirit of turpentine	5 ozs.

This will take about a day to completely dissolve, when it may be used upon a soft piece of rag, using only a few drops, rubbed well over the talcumed surface, and polished with another soft rag, by light rubbing.

The exposed and well wetted tissue is applied directly upon the plate, squeezed down, allowed to stand for half an hour as in the last method, and developed in the same way, finishing the operation with the double transfer paper and drying in the same manner. As soon as they are dry, the print may be removed as with the collodion base, a matt surface being the result. Any spotting that is to be done, must be made with an albumen color, such as can be purchased in tubes, or a little white of an egg may be used when applying the color, which is preferably made by rubbing a solid cake color with a drop of water and albumen upon a piece of ground opal glass, watching the tint upon the side of the opal.

THE NATIONAL CONVENTION AT ATLANTA

BY OUR SPECIAL REPRESENTATIVE

THE annual convention of the Photographers' Association of America was an undoubted success from many standpoints and the men who planned and managed it deserve the praise accorded to them by all those who attended.

Some articles have appeared in the photographic press which contain more *buts* and *ifs* than real words of commendation, but from a broad-minded standpoint it must be admitted that much good for the uplift and help of the photographer was accomplished.

It is true that the attendance was small, but it was a new and fertile field and the greater portion of those who were there were experiencing their first national convention. A large number had never attended any kind of convention before.

To these people of the South went the great national organization and showed to them not only the bigness of the association movement and its great possibilities, but the many practical helps for everyday work in their studios—what better work can such an educational association do?

The manufacturers' display was the finest we have ever seen, most artistically arranged, elaborate in designs and comprehensive in scope. It presented to the eyes of the photographers the most up-to-date methods and mechanical devices, as well as practical demonstrations, showed easier and better ways for arriving at the best results and gave many hints for labor-saving and economy in the work shop. Quite a number of devices were so new that they have not yet appeared in any catalogues. Even a new moving-picture apparatus for photographers was shown in all its practical details.

When we stop to consider that all these displays were viewed and examined by many people in the business of picture-making who seldom get into a town large enough to support a well equipped stock house, who never see the up-to-date products of the manufacturer except by catalogues, it is safe to say that the manufacturers contributed a liberal share toward the success of the Atlanta convention.

Just here we should like to congratulate Secretary Hoffman on his work in this department. The representatives of the different booths were high in his praise.

The National Board promised to show practical picture-making and art principles as applied to photography.

The last named was very ably done by Miss Kate Simmons of New York in three interesting digestive talks with illustrations from master paintings, and the Woman's Federation are to be congratulated for their efforts to secure this talented woman teacher.

Dudley Hoyt of New York, Mr. W. O. Breckon of Pittsburgh, Howard Beach of Buffalo, and Miss Gerhard of St. Louis each gave demonstrations in negative-making according to his or her own individual ideas. These demonstrations took place on a raised platform in the general meeting room, with plenty of opportunity for all to see, and the demonstrators found a large audience every ready to gather in new ideas from their work. The negatives were developed and hung in racks for all to study at their leisure. A certain number of these negatives from each demonstration were retouched, after which Ryland W. Phillips used them in a background working demonstration by the aid of a Balopticon, throwing the image on a large screen while working the grounds. Those people who waited until Friday afternoon to obtain prints from these negatives carried home with them practical evidences of the faithfully car-

ried out promises of the National Board. It should mean something to a worker to see a thing made before his eyes and be able to carry home the tangible results.

Demonstrations of how to make and tone good prints and how to eliminate troubles were held on three separate days by the Eastman Kodak and the Ansco Co. These were also well attended, in fact nothing could happen at Atlanta without an audience.

The general exhibit gives to the photographer who really wants to know more practical hints than any one feature at a convention, and here we found every day a goodly number of interested seekers for advancement hanging on the words of the judges who were there to explain the good and bad points in each print. Every day during the week these men expounded of their knowledge to an audience of photographers and the exhibitor who did not have his prints analyzed by these men who were there for that purpose, failed to receive one of the great benefits provided for them. We do not believe there were many who missed this opportunity. One Southern photographer remarked, "I go over the exhibition every day and the judges' talks are doing me a lot of good and I get just as much from the talks on other men's prints as I do when they are telling about mine."

This year the National Board tried a new plan for selecting the best prints in the exhibit. G. Hammer Croughton, Ryland W. Phillips and Joseph Knaffl were selected for their honesty, integrity and ability in judging the worthiness of photographs.

They studied each and every print in the exhibition with separate slips for each and rated them in four counts: Composition, tone value, background treatment, and general effect. Each count represented a possible twenty-five points, or one hundred points in all. After the convention closed every exhibitor received by mail a rating slip for each of his three prints. No ratings were made public. The Board instructed the judges that all prints receiving a rating of sixty points or over would be hung in the place of honor, and this was carefully done; the judges assisting in the hanging.

This rating system although not an absolute standard maker, is one of the forward steps in helping the exhibitor to look through the eye of the beholder and if in the future such a system can be perfected it will bring us nearer to a standard of excellence in photography than anything that has yet been tried.

It is not possible for a photograph to reach absolute perfection and a photographer receiving seventy or eighty points of a possible one hundred should be well pleased when he stops to consider that no set of judges would feel justified in rating any photograph higher than ninety.

The exhibit was much larger than that at Kansas City last year and of a much higher order of general excellence, especially the "Selected" prints. This is remarkable when one considers that there were at least twenty of the so-called big men of the country who were conspicuous by their absence. This causes one to wonder if the "Big" men are afraid to submit their work to the ratings of any three judges. However, I am told it is the intention of the new Board to continue this plan, so we may find a goodly number of the absentees at Indianapolis next year.

Eleven of the highest rated prints were purchased by the Association as a nucleus for a permanent exhibit. A good plan which will afford an excellent opportunity for comparison if next year's selections can be hung with them in a separate place.

There were very few gum or oil prints and most of the exhibitors used the so-called gaslight papers. We missed the pigments very much, for these mediums undoubtedly lend themselves to the individuality of the worker better than anything we know and give beautiful depths of tone equaled by no other method.

A few enlargements were remarkable for their loose open quality and were free from the disagreeable wiry effect so often seen.

The glass on most of the framed prints interfered with viewing them to the best

advantage on account of reflections, and it would be well if an effort were made to have all prints submitted for exhibition without glass.

Taking the exhibition as a whole we would say that the greatest criticism should be given to lack of photographic technique or the use of the wrong medium. Many prints were hung which were made from excellent negatives, but so poorly printed or toned that their original beauty was lost. The judges were compelled to mark low prints that would have rated high if better care had been taken in printing. It is strange that any photographer will submit work for exhibition that is not the best they can produce.

There were many notable pictures that could be mentioned but that is not within the purpose of this article. A number of them will undoubtedly appear in the annual record and can be studied by all members at their leisure.

The Congress of Photography transacted all the legislative business of the convention and this body so ably headed by President Tyree accomplished a good deal of good work for the future of the association. Two extra sessions were held to thrash out knotty questions, one lasting until nearly midnight.

The question of dues was so adjusted that every photographer is now able to keep up a continuous membership for the nominal sum of two dollars a year and two dollars extra for attendance at the annual convention. This two-dollar membership entitles him to all the benefits of the Association through the secretary's office and an annual subscription to the "Association News." The office of the secretary was moved to Washington, D. C., as a permanent location.

A resolution was passed instructing Secretary Hoffman to get in touch with the state societies with the object of dividing the states into eight different sections, each to hold annual meetings. The section in the district where the National is held to merge with the parent association for that year.

This will take a great strain off the manufacturers and make it possible for them to arrange for much better exhibits at each sectional meeting.

Both these bits of legislation were designed to help the National Secretary in a wide movement to increase the membership, and if this can be accomplished the P. A. of A. will grow to a really big association with great possibilities for the good of the profession at large.

Much other good business was transacted by the Congress and the delegates were in attendance at all times ready to give their opinions and advice on legislation, so that every subject was well thrashed out before final adoption. By turning over all this work to the delegate body the National Board was able to give more time and attention to their long program of instruction and education.

There were also the usual number of entertainments, including an old-fashioned barbecue, and all the members went home having enjoyed the true Southern hospitality of the Atlanta people.

Stagnation and lack of progress are degeneration.

Time is meant to use to good advantage, not to waste in worry and idleness.

Labor and time are wasted if they are not directed to certain definite ends.

Believe that you have some place of real importance to fill in the world. Decide what it is and then take it.

If you think that you are a self-made man, be sure of the fact that never in the history of the world has one man succeeded alone nor that any one nation is destined to endow the world.

EDITOR'S TABLE

Raise the Standard

A FEW years ago the photographer seemed to consider himself the embodiment of *knowledge, skill and ingenuity;* in most cases his *knowledge* was vast enough to enable him to follow a routine, produce a fair style of work, and not depart nor advance from it; his *ingenuity* and *skill* were most exercised in trying to prevent others from learning his process (which, of course, was the only good one); *these selfish men are still in the old rut, and are likely to stay there.*

What a change for the better among the liberal MEN of the profession during the last few years! Now the best workers nobly come forward and instruct the anxious, even vying with each other in their endeavors to give the best methods for producing the best results; and, we ask, have not these men done themselves and our art great good by their liberal conduct? Does not photography stand higher to-day than ever before? Is it not growing in the estimation of an appreciating public? Has not photography already taken its place as a *fine art?* Has not the knowledge disseminated been the means of all this? Most emphatically we say YES. *Let us continue the good work.* As you improve the work of the whole profession, you elevate the profession, and soon it will be impossible for those unwilling or too lazy to come up to the standard to maintain their standing in the fraternity; they will be compelled to abandon a profession for which they are unworthy. Aim high; the public will appreciate good work, and photographers shall prosper accordingly.

Outdoor Work and the Latest Advance in Pocket Photography

AT this season lovers of nature instinctively feel that they must avail themselves of every opportunity to be out and enjoying the beauties that are everywhere found in the country. Each year, when summer comes upon us, we are more than ever impressed with the wonderful charms of landscape and the many opportunities for getting pictures. But the more we study and admire, the more we seem to realize the hopelessness of the rendering in art.

Art? alas! poor art! Why with all these exquisite features in nature, should we not be satisfied to endeavor to imitate? Recent fads and conceits have so far carried painting away from nature that we cannot help feeling a daily increasing respect for photographic art, for in this we not only find more to reverence in the way of truthful portrayal of nature's beauties, but added avenues of innumerable possibilities for the amateur, as well as the professional. The photographer, therefore, should not feel discouraged before nature, for there is no more delightful pursuit than the search amongst picturesque scenery for interesting pictures, and as there is as well at this time a particularly large field and demand in the commercial world for pictures applied to travel, book illustration, catalogues, adver-

tising and press photography, it is especially opportune to furnish further aid to our readers that will shorten a way to success for numerous recruits of the nature-loving and picture-taking class. With a view of supplying a camera that will fulfil all these requirements, the Eastman Company have taken another big step forward by introducing their Autographic Kodak, a full description of which will be found on another page.

Fully equipped with every requirement for outdoor work, by the use of the new Autographic film cartridge the operator can record any memoranda desired, such as the title of the picture, the date, or detail in regard to exposure, light, stops, etc. For the beginner, who will readily educate himself (photographically) by recording the exposures and conditions on the film, to the scientist, who can record valuable data, the autographic feature of this latest Kodak is sure to find many advocates.

TRANSLATIONS AND ABSTRACTS

BY E. J. WALL, F. R. P. S.

Cold Light

As is well known in the production of light most of the energy is converted into heat, for instance, in the case of ordinary gas, only 1.2%, with electric light 1.5%, with sunlight 14% only of the total energy appears as light. The glowworm is the ideal source of light as practically the whole of the energy appears as light. MM. Ville and Denien have managed to hit on the possible solution of the mystery of the glowworm, as they have found that the cause is lophin. This is formed from benzaldehyde and ammonia and has the property of phosphorescing when shaken with an alcoholic solution of caustic potash, and is decomposed into benzoic acid and ammonia. Oxidation takes place, but the process is endothermic, that is heat is absorbed. Whether any practical use can be made of this discovery remains to be seen. Lophin at the present time costs 800 marks a kilo (= about $35.00 per lb.).—*Phot. Woch.*, 1914, *p.* 235.

A New Optical Glass Factory

Prof. Rudolph Steinheil and the Goerz Optical Co. a short time ago started an experimental glass smelting laboratory and the results are so satisfactory that a factory is to be erected. The combination of two such well known names should lead us to expect great things.—*Phot. Ind.* 1914, *p.* 626.

More About Rapid Fixers

Welborne Piper has been continuing his experiments on the above and finds that a bath of

Hypo	300g	6 ozs.
Ammonium sulphocyanide	25g	½ oz.
Water	1000ccs	20 "

will fix in just two-thirds of the time required for a 40% plain hypo bath, which is the most rapid fixer that can be made. It is generally advised to leave a plate in the fixing bath for twice as long as it takes for it to clear. This advice is not always followed but the necessity of this is made quite clear if a plain 30% sulphocyanide bath is used. In this the plate clears very rapidly, but if it is then removed and placed under a tap it instantly becomes opaque from the precipitation of some silver salt which can be rapidly cleared off by another dip in the sulphocyanide. This deposit does not occur if the plate is fixed long enough.—*B. J.*, 1914, *p.* 458.

Simultaneous Development and Fixation.

Otsuki and Sudsuki state that the following formula will give a perfectly fixed and dense image in about 1½ minutes.

A.

Metoquinone	10g	70 grains
Sodium sulphite	50	350 "
Water	1000ccs	16 fld. ozs.

B.

Hypo	100g	700 grains
Caustic soda	8.5	58.5 "
Water	666ccs	11 ozs.

For use mix 3 parts of A with 2 parts of B. The authors state that they have not been able to obtain such satisfactory results with metol and hydroquinone.—*Phot. Korr.* 1914, *p.* 214.

DAS BROMOELDRUCKVERFAHREN, BY DR. EMIL MAYER. PUBLISHED BY WILHELM KNAPP HALLE AM SAALE. PRICE MARKS 2.80.

The fact that this is the third edition of this work that has been published in three years is

conclusive proof that it is sound in its teaching. The author deals first with the preparation of the bromide print and pins his faith to an amidol developer. For the bleaching of the print he recommends:

Cupric sulphate 20% sol. ..... 3 parts
Potassium bromide 20% sol. ..... 3 "
" bichromate cold sat. sol.... 1 part

and to every 100 parts add 2 parts of strong hydrochloric acid and dilute with three or four parts of water. The solution should be quite clear and a bright green color. Many variations of this formula have been given, but not with any specific advantage. Mayer clears up one point that has puzzled many and that is why some prints will not entirely bleach, but present a faint brown image. This he ascribes to insufficient washing-out of the fixing bath; whilst he is correct in the main, one does occasionally meet with prints that, despite the most thorough washing, refuse to bleach out, and this is due to a peculiar physical condition of the silver or the deposition in situ of the oxidation product of the developing agent if amidol is not used. The remedy is prolonged action of the bleach or of the subsequent sulphuric acid bath. One precaution the author lays great stress on and that is the avoidance of undue exposure of the bleached print to daylight, which reduces the image with the formation of metallic silver that may affect the color of the final result. He rightly lays special stress also on drying the print before inking up, and this is absolutely essential if a good result is aimed at.

The book is thoroughly practical and deals with the inking up and transfer of a bromoil in a very careful manner, but it is as well to point out that inking up can only be learned by experience; it seems hopeless to try and say how it should be done and it is difficult even to show. Some of the very latest advances or recommendations are not included, probably because the work was already in the press when these appeared, but to readers of German the book can be well commended.

THE EFFECT OF A FILTER ON THE SHARPNESS OF THE IMAGE.

A. VON HUEBL.

Most of the filters used in photography are made of plate glass coated with dyed gelatine, cemented to a cover glass. Colored glasses are less seldom used and occasionally cells filled with colored solutions.

The filter can be placed anywhere in the path of the rays of the lens, thus at any desired position between object, lens and sensitive surface if it is equally effective. If it is a plane parallel plate it produces no want of sharpness of the image, but in certain cases it affects the length of focus. As regards this point it is not immaterial whether it is placed in front of or behind the lens, it is immaterial, however, whether it is placed close to the lens or at some distance from it, as for instance close to the object or close in front of the plate.

If the filter is placed anywhere in front of the lens the focusing screen must be displaced a distance

$$\Delta = \frac{d}{3} \cdot \frac{1}{m}$$

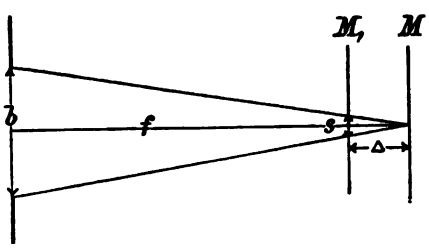
in which d = the thickness of the filter, and m the ratio of image to object. If the reduction is very large, as is always the case in landscape work, $1/m$ is very small and therefore Δ is also small, and the filter has then no action on the focus. But even with a reduction to half size, there is no practical influence, for the necessary displacement of the focusing glass would be, assuming the thickness of the filter to be 2.5 mm, less than ¼ mm. From this it is evident that one can focus in landscape and portrait work without the filter and then put the filter in position; also the scale of a hand camera will remain unaffected under similar conditions.

If the filter is placed anywhere, however, behind the lens the focus is increased by the amount

$$\Delta = \frac{d}{3}$$

that is to say, by about one-third the thickness of the filter.*

The above formula applies no matter the distance of the object or the size of its image. Thus if an object is sharply focused and then the filter placed behind the lens, the image will not be sharp and the ground glass must be moved back one-third the thickness of the filter. For this reason it is always advisable



to focus with the filter in position, and with a fixed focus hand camera the image will not be sharp. Placing the filter in front of the lens is therefore generally preferred. Practically, however, it will be found that the filter may also be placed behind the lens without producing want of sharpness. This fact, which appears contrary to theory, can be easily explained as follows: let f in the accompanying

* The correct formula is

$$\Delta = t \left(\frac{n-1}{n} \right)$$

in which n = the refractive index of the glass of the filter and t = the thickness. We shall not be far wrong in always assuming that n = 1.5.—*E. J. W.*

figure represent the focus and b the aperture of a lens, and M be the plane of sharp focus. If a filter is placed behind the lens then the focal plane is displaced by the amount Δ mm, therefore the first focal plane will be too near the lens, and there will be caused a want of sharpness as though the camera had been focused without a filter at M'. A point will then be represented by a circle of the diameter s. From the figure it is obvious that the want of sharpness

$$s = b / f x$$

it is thus obviously dependent on the thickness of the filter and the relative aperture of the lens. If the aperature $b / f =$ F. 8 and the thickness of the filter is 2.5 mm, then

$$s = 2.5 / 3 \times 1 / 8 = 0.1 \text{ mm},$$

and is therefore scarcely noticeable. If a larger aperture than F. 6 be used then placing the filter behind the lens will cause a noticeable want of sharpness and in this case it is advisable to place the filter in front of the lens. Only with autochromes should the filter be placed behind the lens for the plate is reversed in the holder and the elongation of the focus is an advantage.

From the above arguments it follows that in landscape and portrait work, and even with autochrome plates, with lenses working at smaller apertures than F. 6 the filter may be placed in front of or behind the lens after focusing without fear of much want of sharpness, and with hand cameras there is no fear of trouble. Only with lenses of large aperture should the filter be placed before the lens and with autochromes behind and with reproductions in which absolute sharpness is required should focusing be done with the filter in position. It should also be noted that even if the filter is not placed straight on the lens it will do no harm.

Far more important is the want of parallelism, thus if the filter is wedge-shaped or concave or convex, or if it shows striae either in the glass or gelatine film. Such filters can appear to the naked eye as perfect and yet produce all possible faults in the image. They may elongate or shorten the focus and can produce a want of sharpness that no careful focusing can correct, or may even produce anastigmatic phenomena. Whilst the above described changes of focus by a plane parallel plate always remain the same, whether it be placed in front of or behind the lens, or whatever may be its distance from the same, the faults introduced by the use of the defective filters are more prominent the nearer the filter is to the lens. A defective filter placed in contact with the sensitive surface causes no want of sharpness, so that any filter may thus be used.

The want of sharpness caused by the defective form of the filter depends essentially on the focus of the lens or the extension of the camera. For small cameras of about 10 cm focus any filter with any pretensions to parallelism can be used, a lens of 20-30 cm requires higher qualities and for reproduction cameras with 100 or 150 cm focus only carefully polished colored glasses should be used.—*Wien. Mitt.* 1914, *p.* 203.

A NEW THEORY OF THE DEVELOPMENT OF THE LATEST IMAGE BY A. M. CHANOZ.

(Whilst this paper actually presents no new facts or theory it is an excellent summary of the latest ideas on the subject, and for this reason is worthy of a place in WILSON'S. *E. J. W.*)

IT is very easy to explain by the electronic theory the various modifications which take place in an illuminated body, if one admits the primordial essential fact is the setting free of electrons by the material shocks of the electric vector of the electro-magnetic pulsations. On this basis we can explain the formation of the latent image, and we must admit that the electric vector of the incident undulation, whether this be ordinary light, X-rays, etc., or the bombardment of incident corpuscles, as in the case of the alpha and beta rays of radio-active substances, sets free electrons in the complex grains of the gelatino-bromide of silver, which form the elements of the sensitive surface. With sufficient agitation, either corpuscular energy or vectorial amplitude, corresponding to the limen or threshold of impression or action, the electrons are separated from the complex group of the sensitive salt. The complex is modified, ionised or physico-chemically changed. This modification forms the substratum of the latent image.

If there is ionisation the particles actually affected tend to reunite and to regenerate the initial molecule. The latent image is not permanent and the impression on the irradiated surface disappears in the course of time. I abstain from discussing the various theories as to the exact nature of the modification effected on gelatino-bromide of silver by an irradiation.

When a developer acts on a sensitive plate it is generally admitted that only that portion of the silver bromide modified by the radiations gives the silver image. In the purely chemical sub-bromide theory, which has so many adherents, it is assumed that the gelatino-bromide loses some of its bromine, which is absorbed by the gelatine, with the production of a substance containing less bromine, and the action of the developer is represented by the following equation, if a developer RH_2 capable of giving up H is used, we then have:

$$RH_2 + 2Ag_2Br = R + 2HBr + 4Ag.$$

If, as in the case of an inorganic developer, an -ous salt R'O, capable at the expense of water of giving an -ic salt and liberating H, we have

$$R'O + 2Ag_2Br = R + 2HBr + 4Ag.$$

In both cases the silver Ag forms the opaque grains of the image.

We have here an extremely comfortable representation of the action of a developer, but it is too schematic. One cannot ignore the fact that certain phenomena recently observed, point to the conclusion that the mechanism of development of a sensitive surface is far more complex and that actually the silver bromide not exposed plays the most important role in the production of the silver image. Some of the facts in support of this view are as follows:

(1) A sensitive plate may be developed without any preliminary impression by a radiation. Mechanical action, such as pressure, chemical action as of hydrogen peroxide, so modify silver bromide that it can be developed. But there are many instances in which such disturbances are not essential, for instance (a) certain reducers, endowed with great energy, or high potential, can, as is well known, blacken a virgin plate. (b) A virgin (unexposed) plate treated with a normal developer, will show when examined microscopically more or less grains of reduced silver, actually fog, which do not actually differ in size from those obtained by preliminary exposure and development in the usual way.

(2) In any part of a plate, which has been exposed to a given irradiation, as uniform as possible, all the silver bromide grains do not give a grain of metallic silver.

(3) Microscopic examination shows that, when development has been sufficiently pushed, all the silver grains acquire the same dimensions. Whatever may be the duration of the intensity of the irradiation, below the point of solarisation at which the black grains are the smallest, the grains of silver are the same; only do they differ in number, this being more for an intense than for a feeble illumination.

(4) The classic theory explains "the retarding action of potassium bromide on the appearance of an image" by supposing that it forms with the silver bromide a double bromide more difficult of reduction by the developer than the silver bromide itself. But if this is sufficient to explain the phenomenon of the period of photo-chemical induction in development, this chemical conception is incapable of explaining why all the grains are of the normal dimensions and the image also as intense as in the normal case, if development is sufficiently prolonged.

(5) Scheffer has proved by microscopical research how the silver bromide grains behave during development. He has proved the existence of two sorts of grains:—(a) grains carrying filaments. These grains resemble a thinly spined hedgehog, they increase during development and give the final black grain of the silver image. (b) Grains without filaments, which gradually decrease during development. These he calls the nourishing grains, at the expense of which the filamentous grains, the true nuclei of the definitive silver grain increases.

In underexposed plates there are very few of the filaments. With correct exposure the filamentous grains are more numerous and absorb almost all the nourishing grains in complete development. In overexposure there is excess production of filaments, which cannot completely develop because of the relative insufficiency of the nourishing grains.

The same author has found that when using more concentrated developers the disappearance of the nourishing grains is more rapid and the increase of the silver grains is greater than with dilute developers. He has also found that in emulsions rich in silver, the increase of the silver grains is considerably more rapid than in less rich emulsions.

How is it possible to take into consideration these peculiarities and yet form a satisfactory conception of development? One can conceive three successive phases of the action of a developer:

1. The invasion period or phase, during which the developer attacks the grain of the gelatino-bromide of silver, the primordial element of the sensitive surface.
2. The reduction phase, corresponding to the chemical reactions that tend to reduce to metallic silver.
3. The phase of precipitation, corresponding to the actual appearance of the visible grains of silver and their enlargement.

The invasion phase is not simple. Relatively to the granule of silver bromide, the initial constituent of the emulsion, it may be divided into two periods:—(a) the imbibition period of the developer into the mass of the gelatine surrounding the silver bromide granule, which may be called the time of macro-diffusion. (b) The penetration into the granule and its complex and its complex atmosphere of successive films of varying richness in silver bromide. This is the period of micro-diffusion, which may immediately proceed the reduction phase.

Diffusion plays an important role in development. The strength of the developer is necessarily reduced by use in situ; it is necessary therefore for the continuation of the reduction phase that fresh developer should reach the point of action. One may easily conceive, all other conditions being equal, that the renewal of the developer will take place where the sensitive film is thinnest. For a given plate this renewal will be more perfect by rocking the dish so that fresh developer is constantly brought into contact, that is developer that does not contain the products of the reactions in the depths of the film.

The invasion of the grains will take place principally at the free surface before the lower strata, the result will be that the reduction phase will take place in the super-

ficial grains so that the two phases of macro and micro-diffusion will take place simultaneously in the film. Generally one may say therefore that in development of a plate, if the film is at all thick, at any given moment the three phases will occur at different points. Finally when the film is very thick, experience proves that development does not take place at the level of the glass; this evidently is due to the difficulty of renewal of the developer in the lowest strata of the gelatine.

The reduction phase. Conforming to the adage of chemists *corpora non agunt nisi soluta,* it is admitted by modern chemists that chemical reactions cannot take place except between substances in solution, that is to say between substances having a very large contact surface. When the developer acts at any point on AgBr, forming a heterogeneous system, the reaction ought to take place between the developer and the minute fraction of AgBr which is dissolved proportionately to the tension of solution of silver bromide.

The theory of solutions teaches us that the salts in the liquid undergo ionisation; for example, NaCl disassociates into the two ions Na and Cl with electric charges, according to the equilibrium equation:

$$\mathrm{Na\,Cl} \text{———} \mathrm{Na}^{+} \quad \mathrm{Cl}^{-}$$

Analogously in the case of silver bromide we have

$$\mathrm{AgBr} \rightleftarrows \mathrm{Ag}^{+} + \mathrm{Br}^{-}$$

In a grain of the emulsion permeated by the developer we have at any given amount AgBr solid AgBr dissolved (partially ionised)

Supposing that by an appropriate process (chemical combinations with other substances, neutralization of the electric charges of ions produce chemical elements) we carry away the solution of the ions Ag^{+}, Br^{-}. They will be at once replaced, in accordance with the known mechanism of electrolytic disassociation, by new ions furnished by the dissolved AgBr, this portion being in its turn made good, without immediate disassociation, by a new quantity of solid AgBr. The concentrations of the Ag^{+} and Br^{-} will tend to be constant at the level of an elementary granule of gelatino-bromide invaded by the developing solution.

The developer also contains negative and positive ions. These ions have sometimes a very complicated structure, especially when organic substances are used, a constitution which may moreover vary with the concentration of the developer, but the existence of these ions cannot be denied. One of these ions, the anion, has a negative electric charge which must necessarily be a free electron, if it is monovalent, or *n* electrons if it is *n* valent.

In the reduction phase the phenomenon is essentially as follows: *The ions of the developer react on the ions of the AgBr that is dissolved and disassociated.*

The Br^{-} is fixed in the form of a bromide (metallic or organic according to the nature of the developer) by the power of its electron, which unites with a positive radicle or anion of the developer, which has lost its electron.

The cation Ag^{+} receives an electron from an anion, which has a negative charge, from the disassociated developer. Its positive charge is neutralised; it ceases to be an anion and taking on new properties becomes the chemical element metallic silver. As regards the anion of the developer it undergoes variable transformations which introduce new chemical combinations, which are in turn susceptible to ionisation and complicate the problem.

According to these considerations the anion, the electric vector which is annexed by the Ag^{+}, is *the essential agent of the developer.* To illustrate this mechanism let us take some particular examples:

1. In the case of the ferrous oxalate developer the chief chemical equation of development appears to be

$$\mathrm{Ag}^{+} + \mathrm{Fe}\,(\mathrm{C_2O_4}) = \mathrm{Ag}\ (\text{metal}) + \mathrm{Fe}\,(\mathrm{C_2O_4})$$

The Ag^{+} ion is neutralised by an electron of the bivalent ferro-oxalion group, which subsequently becomes the ferri-oxalic anion. Such a reaction takes place according to the laws of Goldberg and Waage with a certain velocity

$$\frac{dx}{dt} = K.C_{Ag} + C_{Fe\,Ox}$$

in which K is the numerical co-efficient and C_{Ag} and $C_{Fe\,Ox''}$ represent the respective concentrations of the ions Ag^{+} and $Fe\,(C_2O_4)^{=}$ which enter into conflict when in solution.

2. According to Sheppard and Mees the reduction of AgBr by alkaline hydroquinone takes place according to the following equation:

$$\mathrm{NH^2ONa} + \mathrm{NaOH} \rightleftarrows \mathrm{NHONa^2} + \mathrm{H^2O}$$

$$2\mathrm{NHO}^{=} + 4\mathrm{Ag}^{+} = 4\mathrm{Ag}\ (\text{métal}) + \mathrm{N^2O} + \mathrm{H^2O}$$

3° Avec le révélateur à l'*hydroquinone* on aurait :

$$\mathrm{C^6H^4(OH)^2} \rightleftarrows \mathrm{C^6H^4O^{2=}} + 2\mathrm{H}^{+}$$

$$\mathrm{C^6H^4O^{2=}} + 2\mathrm{Ag}^{+} \rightleftarrows 2\mathrm{Ag}\ (\text{métal}) + \mathrm{C^6H^4}\left\langle\begin{matrix}\mathrm{O}\\ |\\ \mathrm{O}\end{matrix}\right.$$

The equation is reversible, for the addition of KBr and quinone to the developer bleaches the negative by transforming the Ag (metal) into AgBr.

$$\mathrm{C^6H^4(OH)(NH^2)} \rightleftarrows \mathrm{C^6H^4(NH)^{-}O^{-}} + 2\mathrm{H}^{+}$$

$$\mathrm{C^6H^4(NH)^{-}O^{-}} + 2\mathrm{Ag}^{+} = 2\mathrm{Ag}\ (\text{métal}) + \mathrm{C^6H^4}\left\langle\begin{matrix}\mathrm{AzH}\\ |\\ \mathrm{O}\end{matrix}\right.$$

5° Avec le révélateur au *paraphénylene-diamine* on a :

$$\mathrm{C^6H^4(NH^2)^2} \rightleftarrows \mathrm{C^6H^4(NH)^2}^{=} + 2\mathrm{H}^{+}$$

$$\mathrm{C^6H^4(NH^2)^{2=}} = 2\mathrm{Ag}^{+} = 2\mathrm{Ag}\ (\text{métal}) + \mathrm{C^6H^4}\left\langle\begin{matrix}\mathrm{NH}\\ |\\ \mathrm{NH}\end{matrix}\right.$$

It is unnecessary to multiply analogous examples, for it will be readily seen that the reduction phase can be perfectly explained by the electrolytic disassociation into ions of the active substance of the developer and the silver bromide partially dissolved. The complex anion of the developer gives up an electron to

the Ag+ ion, which being discharged, becomes metallic Ag.

The precipitation phase. When the reduction is effected the Ag+, neutralized by the anion of the developer, becomes metallic silver, this particle of the lowest dimensions exists in the complex liquid in the state of suspension, that is in the state of collodial suspension.

A solution may be saturated or supersaturated. If it is supersaturated it is well known that visible particles are formed by precipitation, when the supersaturation ceases either to spontaneously exist or by the action on the solution of an appropriate solid body. This being the case nothing is now simpler than to conceive of the mechanism of the formation of the reduced black grains of silver of the negative. It is sufficient to admit that those parts of the gelatino-bromide affected by light, modified in their physico-chemical structure, *play the role of actual germs which put an end to the supersaturation* of the reduced colloidal silver and cause the condensation in increasing layers of the amicroscopic particles of the metallic silver.

The beautiful researches of Scheffer justify a conception of this nature. The filaments are the germs created by the illumination, the nourishing grains represent the masses of AgBr which dissolve and are ionised and give metallic silver that serves for the nourishment of the grains. The more grains illuminated the greater the number of filaments, the greater the modification of its structure, the more reactive it becomes and the more apt it is to provoke the cessation of supersaturation and the more rapidly it will give a visible grain in the negative.

The mechanism of the increase of the volume of the silver grain may also be looked upon as follows: The solution of silver becomes concentrated because, thanks to diffusion, new developer anions arrive which discharge new Ag+ ions giving new particles of metallic silver. At a certain concentration the germ acts, captures the atoms of silver and becomes covered therewith. The supersaturation then ceases, then it is again formed by continuation of the reaction phenomena between the silver ions and the developer ions, and consequently the germ continuously increases in volume to a certain maximum limit.

We are not absolutely informed on this question of the maximum limit of the silver grain of the negative; it is extremely probable that this maximum is conditioned by the vehicle, and is dependent on a particular electric state of the grains. Of one thing we are certain, and that is with sufficiently prolonged development the grains, unequally illuminated arrive at the same maximum.

The action of potassium bromide is easily explained. The solution of KBr is ionised; the Br— ions introduced into the complex solution, wherein the reduction phase takes place, diminish, according to well known laws, the degree of ionisation of the dissolved AgBr. The Ag+ ions being then less numerous, the concentration C Ag dt less great, the velocity dt is diminished and consequently the saturation of the liquid relatively to Ag (metal) is less rapidly attained and the precipitation of the reduced silver round the filaments slower. Finally the grains of the negative are as large as when one works without bromide for, although retarded, the supersaturation is still reached and the dimensions of the grains by eccentric accretion does not depend upon the rapidity of the appearance of the first perceptible deposit.

As regards the appearance of the black grains on a plate, virgin of all illumination, as regards the non-blackening of all the granules of gelatino-bromide of silver equally illuminated, one may accept the following very simple explanation. In a given emulsion all the grains are not of the same sensitiveness: some are so sensitive that they will be precipitated without preliminary illumination; others of mean sensitiveness constitute the filamentous germs for an illumination attaining the limen or threshold and beyond; others finally of such feeble sensitiveness constitute in all cases the nourishing grains of Scheffer.

SUMMARY.

According to the new theory the action of the developer on a photographic plate is as follows:

1. *Solution and ionisation* of the grains of gelatino-bromide of silver that are not sufficiently altered by the preliminary illumination of the sensitive surface.

2. *Discharge of the Ag+ ions by the mediation of the electrons carried by the anions of the developer.* Formation of metallic silver, in the state of extreme division, which is provisionally *in colloidal solution.* The rapidity of formation of the particles of metal (velocity of reduction) is, according to the mass law, proportional to the concentrations of AgBr and the developing agent in solution.

E. The granules of gelatino-bromide rendered reactive by a sufficient insolation, that must attain or pass the limen, play the part of germs of condensation (the filaments of Scheffer). They precipitate on their surface the colloidal silver formed in the reduction phase at the expense of the unaltered grains (the nourishing grains of Scheffer) and give the black grains of reduced silver of the negative. These grains may attain a size independent of the insolation of the plate and conditioned solely by the medium.—*Rev. Sci. Phot.* 1914, *p.* 101.

THE WOMEN'S FEDERATION OF THE PHOTOGRAPHERS ASSOCIATION OF AMERICA

Founder and Honorary President
Mary Carnell,
3731 Spruce St.,
Philadelphia, Penn.

President.
Pearl Grace Loehr,
39½ Washington Square,
New York City, N. Y.

First Vice President
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1029 Oak Street,
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Section II
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New Bern N. C.

Section III
Pearl Taliaferro,
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Section IV
Ethel C. Standiford,
621 South Fourth St.,
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Section V
Mrs. J. M. Yoder,
Herington, Kansas.

Section VI
Jean Ed. Tomlinson,
Hannibal, Mo.

Section VII
Ruth Rice,
1123 West 24th St.,
Los Angeles, Cal.

AN IMPRESSION OF THE WOMEN'S FEDERATION AT ATLANTA

BY BAYARD WOOTTEN

THE Women's Federation of the P.A. of A. was much in evidence in Atlanta, and the women are happy in the knowledge that they were of real help in making the occasion a success. A representative of a local paper asked where all the women came from, and when told they were photographers and members of the Association was very much surprised. There was probably a larger percent of women present that at any other National Convention, and this was due to the untiring efforts of the Federation. Every new member they take into their ranks means a new member for the National Association, and the Federation will be of material aid in helping solve the problem of a large membership for the National.

This year the Federation has proved beyond doubt that the results they accomplish are worth the effort. To my mind their achievement of most value is the place they have made for the little woman who has not yet grown to her full stature. They make her feel that they want her, and welcome her; are glad of her contribution to the exhibit, and that she is worth while. If they never do anything more than this one thing the end justifies the costs.

The Federation not only showed their ability in bringing in new members, but when they got them, they had things well worth their while. At their suggestion Miss Kate Simmons, of New York, gave several masterly lectures on composition as applied to photography. Miss Simmons is a critic of recognized ability in the art world, and she proved she deserved her reputation by the simple way in which she presented her broad subject. Any one that has sense enough to fill a plateholder and press a bulb, could not have listened to her and failed to grasp some of the fundamental principles of composition. It is very much to be regretted that on account of a crowded programme Simmons did not deliver all the lectures she was expected to.

Miss Gerhard gave one of the most clever and helpful demonstrations under the skylight that it has ever been my good fortune to see. She worked under very trying conditions, in that her audience could not get the full benefit of what she was doing on account of the light falling in such a manner that only a limited number could see from her standpoint. This did not disconcert her in the least. She was quite as much at ease as if she had been working in her own studio with no audience.

The exhibit of women's work was helpful in

MAYBELLE D. GOODLANDER
PRESIDENT-ELECT WOMEN'S FEDERATION

SARA F. T. PRICE
2ND VICE-PRESIDENT ELECT WOMEN'S FEDERATION

the extreme. Many of their things had marked originality of treatment, I do not think a woman should have seen her work in this collection and not have been benefited by the lesson that comparison taught.

One of the most enjoyable things of the Convention was the expression of appreciation that the Association made for the earnest efforts of Pearl Grace Loehr for the success of the Convention. This was done in the presentation of a beautiful silver Loving Cup, and I think that everybody was just a little happier for having contributed to it. Under Miss Loehr's leadership the Federation has made a wonderful record this year. She has set a standard which will make every incoming officer give her very best in order to live up to it.

STUDIO OF THE SECRETARY WOMEN'S FEDERATION, P. A. A., 7430 SPRAGUE STREET, MT. AIRY, PHILADELPHIA, PA., JUNE 25TH, 1912.

RESOLUTIONS ADOPTED BY COMMITTEE ON RESOLUTIONS, WOMEN'S FEDERATION, P. A. A., ATLANTA, GA., JUNE 19TH, 1914.

FIRST. That, be it hereby resolved that we, of The Women's Federation, P. A. A., desire to express our thanks and appreciation to The Glen Photo Stock Company, to the Southern Photo Material Company, The Eastman Kodak

BAYARD WOOTTEN
SECT'Y. AND TREAS. ELECT WOMEN'S FEDERATION

Company, all local manufacturers and organizations; *The Photographic Press* for their many provisions for our entertainment during our stay in Atlanta. Also, Mr. Harry Fell for making it possible for all to enjoy the Grand Organ Recital.

Second. That, we, of the Women's Federation of the P. A. A., do most gratefully acknowledge the cordial support and generous credit extended to us by the Executive Board of the P. A. A.

Third. That, we, The Women's Federation of the P. A. A., desire to express our deep regret that the illness of "Papa" Cramer prevented him from being in our midst, and that one of our most loyal workers, Miss Blanche Reineke, could not be with us.

Fourth. That, we, of The Women's Federation of the P. A. A. wish to voice our sincere appreciation of the delightful welcome and hospitality extended to us by the Misses Mead of Atlanta, the women of Atlanta, and the local Entertainment Committee.

Fifth. That, we, The Women's Federation, of the P. A. A. have a deep sense of regret that our former president, Miss Katherine Jamieson, could not be with us and wish to thank her for her most generous gift.

Sixth. That, we, of The Women's Federation of the P. A. A. do hereby express our appreciation of the wise and untiring work of our officers and the chairmen of sections during their term of office.

NANA BERNHARDT, Spartansburg, S. C.
LOTTA READ, Atlanta, Ga.
MAUDE GOODLANDER, Muncie, Indiana.
BAYARD WOOTTON, New Bern, N. C.
CLARA LOUISE HAGINS, Chicago, Illinois.
Committee.

PHOTOGRAPHY IN GREAT BRITAIN

A Review of the Month from our own Correspondent

LONDON, *July*, 1914.

THE two midsummer months bring in their train much of interest to the progressive amateur photographer. Indeed, if the adjective strictly applies, the Metropolis is full of interesting objects, not upon account of the advance of the "London season" so much as from a manufacturer's standpoint. The success of the recent arts and crafts (photographic, of course,) exhibition has much to do with this. Innovations and improvements in apparatus produced as novelties at this exhibition have passed through the transitionary stage to success or failure as the case may be. They have, in brief, stood the test of practical demonstration, or perhaps that most conclusive of all tests, actual application. Naturally it behooves the amateur, and for that matter the professional worker, too, with any pretence to modernity in method, to spend at least one day in London visiting the showrooms of the respective manufacturers. This practice has other advantages less obvious than the advertising of each firm's particular goods. It is a plan widely adopted for manufacturers of plates, papers and process materials to set apart one afternoon per week for demonstrations of different media. By dint of observation it is quite possible for an ambitious novice to become quite an adept at bromoil by spending a few Friday afternoons in the neighborhood of Kingsway. It seems rather inexplicable that large firms like Kodak, Houghtons or Ansco do not adopt a similar plan of campaign but remain content to display specimens of finished work. It is a hundred times more convincing—I write in reference to the sceptical British amateur—to see those results actually produced; to observe the conditions under which the showcard specimens attain such a remarkable degree of technical perfection. A decade ago the first mentioned company made a most successful début with the folding pocket camera by touring the provinces with an efficient staff of lecturers and demonstrators. Every city of any importance was visited and the public invited to see demonstrated the small instrument that was destined to mark a new era in the photographic world. And the public responded in no small measure, yet subsequently this method of advertisement was abandoned for the more conventional pamphlet or poster. In the winter season when lectures and exhibitions are in vogue amongst our photographic bodies many manufacturing concerns send out representatives to explain and instruct some new or recent process, but these demonstrations are not open to the general public. Another alternative, one that is to be condemned from a manufacturers' standpoint, is that of sending out to officials of photographic societies samples of a new plate or paper with only printed instructions. A demonstration on these lines was arranged by an East Yorkshire society last winter and samples and instructions fell into the hands of an incompetent official. The results he produced were a cruel libel upon both the printing-paper and its manufacturers.

A Proposed Federation.

The growth of organized amateur photography in the southern shires of England indicate the early formation of still another feder-

ation. We have now had for some time such important amalgamations as the East Anglian Federation, Lancashire and Cheshire Federation, Yorkshire Federation, Northumberland and Durham Federation, etc., so there can be no doubt as to the utility of a southern federation. Photographic societies in the south of England from Bath to Brighton are hoped to be incorporated, while its limits on the other side will extend as far as Guernsey in the Channel.

Hot weather Difficulties.

The heat of the hands is often sufficient to commence a dry plate frilling when taken out of the dark slide previous to development. These troubles are very prevalent at the moment and it is therefore of interest to note the advice of the dealers to obviate or reduce to a minimum a common and troublesome complaint. Preliminary baths of formalin, alum, or formaldehyde are recommended where it is necessary to use a developing solution containing a powerful alkali. But the most suitable, especially where strong or contrasty negatives are not sought is a weak amidol developer. This compound contains little to encourage frilling or eruptions upon the emulsion, while for films it cannot be too highly commended. It is a wise precaution in summer to use a brand of plates with the emulsion of a good thickness. Thinly coated plates are not only more subject to frilling but also fog quicker than those more substantially coated. In the final washing of plates and papers there is a great danger, if the operation be unduly protracted, of unsightly air-bells appearing upon the emulsion surface. With a strong emulsion they may dry flight, but often in the case of prints they burst and the result is spoiled. It is possible to purchase in this country for a few pence solutions that eliminate the hypo from the print by simple immersion and they are very useful when any risk attaches to washing in the ordinary manner. Common permanganate of potash dissolved in solution until it is the color of claret is an excellent substitute and finds favor with some of our best professionals. After fixing immerse in plain water the plates or prints, then transfer to a bath of the above. The brilliant red of the permanganate will rapidly change to brown and it is necessary to repeat the operation with fresh solution until the immersion of the print or plate makes no difference to its color. Generally speaking half a dozen times will suffice and as about a dozen gallons of solution only costs two cents, no objection can be raised on the side of economy.

Photographers in Hospital.

A distinct innovation in the way of excursions in search of the picturesque has been introduced by the Photographic Federation of the Midland Counties, which went "en masse" to a Warwick hospital a fortnight ago. At first impression the object of journeying to a hospital for the purpose of obtaining pictures may appear a trifle problematical, but it must here be explained that the building and not the inmates was the attraction. It is an historic old structure, both interior and exterior, and full of photographic opportunities.

Photography; the Historian.

During the past few days I have been inspecting a collection of prints made by the members of the local photographic society at Keighley, a moderate sized municipality in Yorkshire. The result is undoubtedly a permanent and creditable memorial to both the society and the town. The collection has taken seven or eight years to complete and comprises an illustrated record of the town from the middle of last century to the present day. In the beginning the Society's members each agreed amongst themselves to borrow from their relatives and friends any old prints, paintings, engravings, etchings or drawings that were of any possible interest in local history or legend. When a few hundreds had been got together the heavy task of reproduction commenced. Each picture was carefully photographed, enlarged or reduced as circumstances may have required, and the original returned to its rightful owner. Platinotype was chosen as the medium for the exhibition prints, because of its brilliancy and permanence. Since that day the accummulation of the photographic records of the town has grown voluminously and last year the entire collection was given a permanent home in the local Free Library. Similar work, but upon a much larger scale, by the Photographic Record Survey of Surrey, is being done, inasmuch as it covers a whole county. This, too, is established in a local Free Library and its immensity necessitates the division of the photographs into six or seven departments. Taking architecture, for instance, we find hundreds of prints illustrating the designs, styles and constructions of houses, churches, gateways and public buildings erected within the county boundary from over two centuries ago to the present day. I have seen a copy of the annual report of this Society which shows that the total number of prints now available for reference exceeds 6,800, while there is close upon 2,500 lantern slides. The curator of the library where the collection is housed says that during last year over 8,000 references were made to the pictures by the general public. Such an achievement as this is the best conceivable reply to the critics of photography, for here we have its utility demonstrated to the full.

Stains.

Stains are one of the most annoying bugbears affecting any craft. Absolute cleanliness in method is often advocated as the best assurance against them, but even under ideal conditions they are encountered and the most

methodical professional has from time to time to contend against these trifling but disastrous imperfections. Stains can be diagnosed in many ways and traced to a hundred different causes, although most frequently they are attributable to slip-shod methods in the dark-room. Hustling does not always pay in photography and very often we find as the result of extreme haste a batch of mottled prints or negatives. Stains, too, are infectious. A negative improperly washed, packed away in a box facing another, will speedily transmit its affliction, and a print mounted and laid to press with another has been known to do the same in the short space of a few hours. The moral is obvious, yet it often occurs that blemishes arise even when the most elaborate precautions have been taken. A fruitful cause of these and pin-holes is common dust or dirt, for although dishes, measures, shelves and fixtures may be perfectly free, it rarely appears to occur to some people to have the ceiling of the dark-room thoroughly swept. Lime and dust invariably collect along the cracks and edges and when it is in a position immediately above the head of the operator a special point should be made of having it removed. Another cause is leaking dishes, especially in the preparation and treatment of enlargements where rocking the dish to secure even immersion often floods the contents over the sides onto the bench. At some time or other before operations are discontinued the fingers must touch the bench in some way with the result in more cases than not that traces of foreign chemicals are unconsciously carried from one dish to another. However, most stains, either on negatives or prints, will yield to a good strong hypo bath, say 1 lb. hypo to 30 ozs. water. Soak them until the stains disappear, then wash and dry as usual. Certain obstinate disfigurements are not so easily removed, but if the negative is a thin one intensification will often perform a dual service of removing the stains and strengthening the negative.

New Processes of Color Photography.

During the past six weeks no less than four new processes, by which it is claimed by the inventors photographs in natural colors are obtainable, have been deposited at the Patent Office. In two of these their resemblance to existing processes is so close that it requires an expert to make a distinction. Another process by a London inventor is based upon the taking of two negatives through a green and a red filter. Instead of developing out the results in colors a chromatic effect is obtained by subsequent bathing in dyes of different shades. For delicate work these have to be applied with a brush to the uncolored parts of the print.

J. B. SUTCLIFFE.

NOTES AND NEWS

THE AUTOGRAPHIC KODAK—A NEW AND INGENIOUS DEVICE.

THE new Autographic Kodak (No. 3 A.) was introduced for the first time at the Atlanta Convention, and met with instant and enthusiastic approval. Moreover, it is regarded by the trade generally as one of the biggest steps forward the Eastman Company has made in some time, and is going to be of use in a hundred practical ways.

The Autographic Kodak is the 3¼ x 5½ or postcard in size, and sells at $22.50. A special film is used to adapt it for autographic uses, but the ordinary Eastman film may be used if the autograph or data is not required. The film is sold at the price of the ordinary film.

The Autographic Film Cartridge is made with a thin red instead of the familiar thick red and black (duplex) paper. The red paper is not light proof in itself. Between it and the film is inserted a strip of tissue. This tissue serves two purposes: To supplement the red paper in light-proofing the cartridge, and to permit the recording by light of the writing upon the film.

It has a spring door on the back, covering a narrow slot through which the writing is done upon the red paper, as you will notice in our illustration. The slot is provided with an automatic safety spring border which operates when the door is open to press the papers into contact with the back of the film, thus securing the sharp printing of the image of the writing and preventing the diffusion of light around the edges of the slot.

After the picture is taken, open the door, and with the stylus, or a smooth-pointed pencil, held in as upright a position as is convenient, write on the strip of exposed red paper any memorandum desured, such as the title of the picture, the date, or details in regard to the exposure, light, stops, etc. The action of the stylus so affects the tissue as to permit the light to record the data on the film. After writing, the door is left open and exposed to

light for a few seconds and the writing then becomes a part of the negative, which is developed like any ordinary Eastman film.

In other words: The photographer simply opens a little door in his camera and writes anything he pleases with a pencil on a strip of paper under which runs the edge of the roll of film. The pencil mark lets in enough light so that the writing is developed on the negative like the rest of the picture. It appears on all prints from that negative. This makes possible the autographing of portraits and the labeling and dating of scenes. But it has a far more important use. Those professionals or amateurs who are doing really serious work will use it to record the exact conditions under which an exposure was made in time of day, opening of lens aperture, etc. The artist also will have on every print a basis of criticism of his own work, and this will tend to eliminate his errors far more rapidly than when memory or a detached note was his only aid. This ingenious device was invented by H. J. Gaisman, of this city, to whom the Eastman Company, it is reported, paid $300,000 for all rights. This new Autographic Kodak is destined to be invaluable and indispensable.

Photographing Upon Wood.

The surface of the wood is soaked with a five per cent. solution of potassium alum, after which it is dried and covered with the following solution:

Water .....100 cc. (3½ oz.)
White Soap .....2 grams (31 grains)
Gelatine .....2 to 3 grams (31 to 46 grains)
Alum .....1 gram (15½ grains)

The alum is first dissolved in a little warm water, after which it is added to the hot solution of gelatine and soap, in small portions and thoroughly stirred. This solution is used hot.

When the wood is dry, one applies to the surface, for one or two minutes, a two per cent. solution of ammonium chloro-hydrate and it is then dried again. It is finally sensitized by an application of a twenty per cent. solution of silver nitrate, applied with a camels hair brush. The sensitized piece of wood is then exposed behind a negative in a special printing-frame, which will permit of observing the image as it develops. It is fixed in an ordinary hypo-sulphite bath.

A Storing Box for Prints.

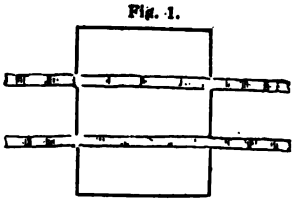
Unfinished prints, of whatever kind, should be kept under slight pressure until it is convenient to tone, fix, or develop them, as the case may be.

Probably the majority of photographers use ordinary plate-boxes for their prints and in some cases an old negative is employed to supply the pressure. This is what I was in the habit of doing, and most of my acquaintances followed the same plan.

I found it inconvenient, when adding a fresh print to those already in the box, to have to remove the negative used as a weight. I did this usually by turning the box upside down, which generally involved some exposure to light of the prints already in the box.

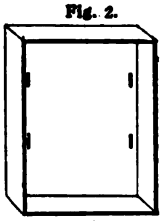
The device that suggested itself to me proved so successful that I hope it may be acceptable to other photographers. Its advantage is that all that need be done is to take the lid off the box and put the print in. Those already in are not disturbed.

Fig. 1.



Tapes fixed on plate.

Fig. 2.



Position of slits in box-lid.

Taking two old half-plate negatives I gum two strips of tape on one of them (Fig. 1) so as to divide the longer dimension into three equal parts, about four inches being left to project on each side. Over the tapes I gum the other plate and secure the two evenly together by binding with a lantern-slide strip at each end.

The bound negatives are placed inside the lid of the half-plate box and a slit is made with a penknife at the points where the tapes are (Fig. 2). This secures the plates in position in the exact center of the box. The ends of the tapes are passed through the slits, the lid is reversed and placed on the box so that the plates rest on the bottom. The slack tape is pulled up so as not to lift the plates from the bottom of the box, the ends of the tape being gummed to the lid. When the lid is lifted, the plates, of course, are lifted with it and the tape in the lid allows enough room for the box to be filled with prints.—*Photographic Scraps.*

Announcement.

"How To Make a Studio Pay," by the well-know expert Frank Farrington, will be published early in September. No more important hand-book for the professional has been issued in recent years. The practical subjects covered include: "Buying and Arranging the Stock," "The Treatment of Customers," "System in the Studio," "How to Know the Profits," "Credit and Collections," "Developing Side Lines," "Business-Getting Schemes," etc., etc.

This will be an invaluable hand-book for every studio. Price only one dollar ($1.00) postpaid. All orders will receive prompt attention. Address this office for circular and further particulars.

16TH ANNUAL PHOTOGRAPHERS' ASSOCIATION OF NEW ENGLAND CONVENTION TO BE HELD IN COPLEY HALL, BOSTON, OCTOBER 13, 14, 15, 1914.

At a special meeting held May 12th, 1914, the Constitution was amended to read: Art. III, Sec. 1:

Proprietors of studios in New England and the Maritime Provinces are eligible, and will be admitted to membership by paying one dollar annually, and an additional dollar when attending the convention, at the treasurer's office, before entering the hall, or in advance to the secretary.

Employees shall pay an annual dues of one dollar only, which entitles them to all the privileges of an active member.

A printed card showing certified membership (suitable to frame and display in the studio) will be issued yearly upon the payment of annual dues.

The above makes it possible for all to show their patriotism by becoming members and giving aid to the association, and are under no further obligations or expense, unless attending the convention. The certificate of membership (suitable to frame) displayed, adds to the standing of the member among his patrons.

The following prize list has been decided upon by the executive board:

Grand Portrait Class; open to the world; no entry fee: One picture only, 8 x 10 inches or larger. *Solid Gold Medal.*

FOR MEMBERS OF THE P. A. OF N. E. ONLY.

Landscape Class; three pictures any size. First Prize, a Silver Cup. Second Prize, a Copper Cup.

Commercial Photography Class; three pictures any size. First Prize, a Silver Cup. Second Prize, a Copper Cup.

States Class; portraits only; three pictures any size. First and Second Prizes for each State division—Maritime Provinces, Maine, New Hampshire, Vermont, Massachusetts, Rhode Island and Connecticut.

Competitors are eligible only in the State Class wherein they are members.

No picture can be entered in more than one competitive class in any of the above.

Space will be reserved for complimentary exhibits for all who do not care to enter in the competition for prizes.

All exhibits must be in the hands of the committee on or before October 9th and all charges must be prepaid to insure acceptance.

No exhibitor's name shall appear on the pictures, each exhibit will be numbered. Names will appear after the awards have been made.

Geo. H. Hastings, *Secretary.*

Perseverance.

In all business it is the persevering man that comes out ahead.

If the truth were known, many a business genius is nothing but personified persistence; and quite often he owes his success more to dogged determination than to extraordinary talents.

The sea of business has its flood-tides and ebb-tides, and it is when trade reaches the low-water mark that the pessimists and weak-willed drop out. They forget that the tide must change because of a fixed law.

No doubt, the difference between success and failure can be measured by perseverance.

The man who will not admit the word failure in his thoughts is sprinkling salt on the tail of achievement. While the man who groans, grunts and grumbles, and thinks failure possible, is trying to catch it with a bass drum.

The man who prepares for poor business gets it.

The way to be successful is to think success —and the way to have good business is to go after it.—*Backbone.*

Keep up your interest in the Ansco Contest during the warm months.

If there is ever a time when we feel like surrendering to that assassin of ambition, Inertia, it is in the summery, withery weather when the mercurial fluid is dancing around the ninety-degree mark, and tree-leaves are refusing to stir a fraction of an inch.

We wouldn't be natural if we weren't tempted to put on the brakes in hot weather, but a little, calm reasoning will prove to the most nonchalant among us that it is *all wrong,* especially if we are to realize the greatest benefit from the interest already created in Ansco Company's big $5,000 Prize Contest for photographs of America's 50 Loveliest Women.

Folks have their pictures taken in hot weather, don't they?

Of course.

Lovely Woman seems lovelier still in pretty, summer gowns, doesn't she? We agree she does. Now, then, why isn't summer a particularly good time to round-up a goodly number of "loveliest women" prospects, just while they are looking their prettiest?

The big, compelling Ansco advertisements that are appearing in the leading publications are cultivating a *receptive mood* among that vast company of American Beauties who are conscious of their charm, and among their enthusiastic friends who naturally desire to have a wonderful portrait of them made for exhibition before the world at the great San Francisco Exposition.

It is your opportunity to capitalize this receptive mood; to make the most of it while it is still receptive, and you can do it.

The natural connecting link between interested prospects and your studio is the free, electrotype service Ansco Company has prepared especially for the purpose of reminding these prospects that *yours* is the studio for producing prize-winning photographs.

A new series of electrotypes is ready for your selection this month. A postal to Ansco Company, Binghamton, N. Y., will bring you full description and proofs. In your local newspaper these attractive cuts will get right to work sending new business direct to you.

A good plan also is to have a bunch of circulars printed, using one or more of the electros, together with some "copy" that applies specifically to your studio, and the special advantages you have to offer. These circulars can be sent out to a carefully selected mailing list with good effect. This has already been done by a number of photographers.

Word-of-mouth advertising will prove very effective, too. Once get everybody in the town talking about Ansco Company's $5,000 Loveliest Women Contest, and you have accomplished much. By all means, let it be *known*. Spread the news from one end of the town to the other.

And here's another point: Make it plain that this is not essentially a *beauty* contest. There are countless numbers of women in all ages and stages of life who are lovely in every sense of the word, yet might not be considered beautiful. It is the *lovely* women who will be chosen by the distinguished Board of Judges for the honor roll and it is *you* and forty-nine other photographers who are possible winners of the $50 to $500 prizes.

Let's ignore the warm weather and take a new plunge into the thick of this famous Contest. Let's set our teeth and determine that we are going to make all the money we can out of it, and get the honor of having a contribution on display at the Panama-Pacific Exposition besides.

We were under the impression that burglars invariably look for small valuable articles when they smash any show windows, jewelry being their general desire, but it seems that cameras also attract them, judging from the report received from Broadway, New York, where the show window of C. G. Willoughby, was broken by a large stone on the night of June 30th, and cameras in value of nearly $400.00 stolen. The cheaper grade of cameras displayed in the window was left untouched, only those having high grade lenses being removed. It seems to us that any one desiring to take up photography as a hobby should to say the least buy their camera, even if they borrow their developer and paper, but to steal the primary instrument is a mean and despicable action.

Easily Made Printing Machine.

Here is a home-made printing machine that saves a lot of time. It was made by Wm. McClearie, of Santa Rosa, Cal.; and is used every day in his gallery there. It is located in the dark-room and light is furnished by electric lamps.

The machine itself was made from an old sewing-machine frame. A pocket is made just below the opening where the sewing machine was originally placed. In this are mounted five electric globes. One is in one corner and is provided with a ruby globe. It is used only for furnishing light while the plate and paper are being arranged. When printing is to be done, this light is turned off automatically as the four lights with white globes are turned on.

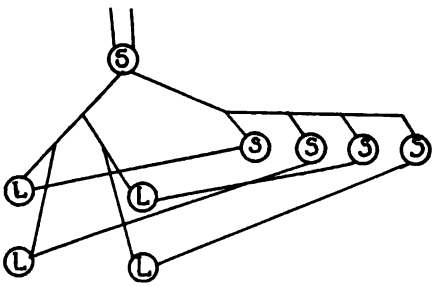
The top of the opening is covered with ground glass. Above this is fitted a cover made in three sections as shown in the drawing. This is held up by a wire that is attached to a spring. Just back of this sectional cover is a large roller which is attached to the pedal of the machine.

When the foot is pressed on the pedal, the roller is pulled forward, and it thus closes the cover, shutting out light from above. The negative and the printing paper have first been put into place, and as the roller reaches the farthest end of the cover, the levers that operate it come in contact with an electric switch and the four lights in the pocket are turned on.

When sufficient time has been allowed for the printing, the pedal is released and the cover flies open, the white lights are switched off, and the ruby light switched on. The ruby light is operated by a switch at the other end of the slot in which the lever operates.

At one end of the machine is a row of four switches, each one of which controls one of the white lights. If the picture needs a little less light on one corner, the light on that corner is turned off.

The important feature in the making of this printing machine is the wiring. Each light must have a wire that runs direct from the feed line. It must also have a wire that runs through the switch at the end of the machine and then through the four switches on the lever. The accompanying drawing shows how the wiring should be done.



The lever, of course, must have four copper connections that will unite the wires on one side with the wires on the other. Thus the circuit is completed. If one switch is turned off, the light does not go on, because it is not connected with any of the other circuits.

Sixty Years of Photography.

In its issue of June 19, *The British Journal of Photography* celebrates the completion of sixty years of publication by the presentation of a supplement, entitled "Photography, Past and Present." These pages provide a review of the origin and progress of photography from the year 1839 to the present day. They show the great developments which have been witnessed in photographic processes, many of which owe their existence to the contributions to the *British Journal* by workers in the past. The supplement is fully illustrated, whilst in the body of the paper are reproduced portraits of veterans of photography and of past and present editors of the *British Journal*. The issue is one which every photographer will read with interest.

A Correction.

Last month we published an article on "Marine Photography" by Mr. William S. Davis, the well-known writer on photographic subjects. Through an error Mr. Davis' initials were given as William A.

Autochromes in India.

Miss Helen Murdoch, F.R.P.S., whose fine autochrome work was shown to members of the Royal Photographic Society not very long ago, has been at work with this process recently in India, and gives us some very interesting and practical notes on hot climate work in this connection. The plates keep satisfactorily for several days if left in the dark slides. Early morning she finds the best for color effects. One remark is rather curious. "I prefer to work with my lens wide open (F. 4.5), as it gives truer color." The first part of the sentence is easily understood, but why stopping down affects the color is not quite so easily seen. Perhaps the Purkinje effect may have something to do with it; but one would not expect this cause to come in unless the stopping down was very considerable, or the subject very dark indeed. This point might well receive the attention of the experimentalists. For portraits Miss Murdoch suggests an exposure of twenty seconds when working indoors near a window in a good light, but she has secured excellent results in the New York Camera Club on a rainy day with three minutes. Against these she suggests two seconds for early morning (landscape), or one second when the sun is up. Ice is freely used to keep down the temperature of the solutions. If the image comes up in ten seconds she takes the plate out in seventy-five seconds. Old plates must be very fully developed or they show fog streaks. The plate may be examined by the aid of a pocket searchlight covered by two thicknesses of green and two of yellow virida papers.

Coloring Photographs by Hand

Coloring photographs by hand has always been a tedious job, and in many cases a difficult one, especially when large surfaces require a uniform coloring. A few experiments with the Assur process enable practically any person to produce passable colored effects, and excellent work can be done with a little practice. An outfit consists of a box with six or twelve tubes, and a large tube of "Malmittel," the coloring medium. A small quantity of this medium is mixed on a small sheet of cardboard with the desired cardboard. The mixture is then rubbed with a circular motion over the parts it is desired to color, no particular attention being paid to the outlines. A clean cloth dipped in turpentine and wrapped around the finger is the simplest method of distributing the color. A clean cloth dipped in turpentine or a piece of rubber will easily remove any color that has overrun the outline. No brush is needed at any time, small stomps of blotting paper being used. These accompany the outfit. Owing to the rapid evaporation of the turpentine, the work dries almost immediately.

Any kind of effect can be produced, and the finish is under perfect control, dull or glossy as you wish. Nearly all photographic papers can be used, and owing to the simplicity of the process, mistakes can be easily rectified until a desired effect is obtained. After 48 hours, however, it is impossible to make any further change, and the colors become permanent. Schering & Glatz, 150 Maiden Lane, New York City, will be glad to give further particulars upon request.

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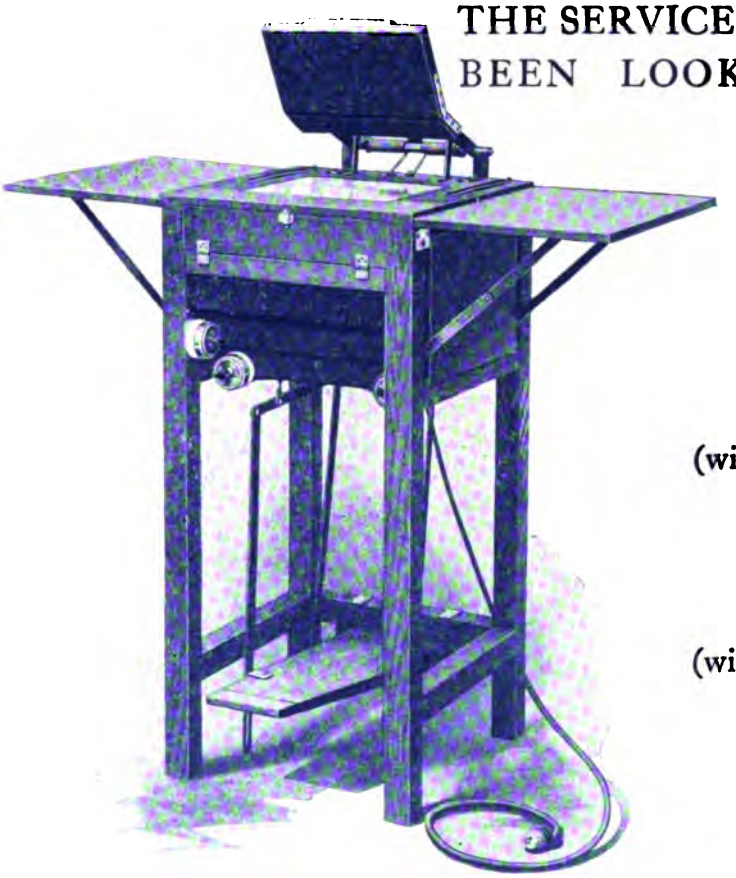

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PORTRAIT
BY WILLIE WULFF
PARIS, FRANCE

WILSON'S PHOTOGRAPHIC MAGAZINE

FOUNDED IN 1864 BY EDWARD L. WILSON

VOL. LI. SEPTEMBER, 1914 No. 9

A SCULPTOR-PHOTOGRAPHER

BY AMOS STOTE

ANY Friday afternoon, for ten months of the year, you may be sure of a welcome at No. 10 Rue Campagne Premiere, first door on the left as you enter the courtyard. If it is summer and the windows are open a medley of foreign voices may come filtering through the vines which conceal the latticed openings; but don't let this disturb you, pull the bell-cord and wait with pleasant expectation. The door will be opened by a smiling giant who will make you welcome in French or English, German or Italian, Greek—or even his native tongue, Danish.

Four-thirty, or around five o'clock, or even five-thirty; for Paris is so glad a city the people seldom take time seriously, and the knowledge of a tea in progress, with good cigarettes, will attract any time within the hours of four and seven, and without apology. So it happens that on a Friday afternoon you are likely to see a very varied lot of people turning into the courtyard at Number 10; from those who come in stately carriages to those who come in sandals, because sandals are cheaper than shoes, ladies in the very latest of Parisian creations and art students who have evolved a dress of sorts with the aid of an old curtain; men in top hats and men in corduroys.

And so Willie Wulff serves tea to anyone who cares to come. No one feels any obligation as a result of his using this means to advertise the fact that he does portrait photography, because no one thinks of it as advertising. All of which goes to prove it one of the best forms of limited publicity that one may adopt.

However, the business-bringing value of these Friday afternoons has solved the question of a livelihood for this young sculptor. About two years ago he was struggling in a small studio, living in the hit-and-miss way of many of the artists who are wrestling with the same old,

A CORNER OF THE STUDIO

cruel starvation problem while endeavoring to acquire a position in their art that will give some sort of subsistence. Wulff had long used a camera for the joy of it and to make a picture diary of his travels, as well as to aid him in the study of sculpture.

It had been a struggle to reach Paris after the student days had passed and the paternal allowance was governed by the paternal suggestion that Copenhagen would be quite large enough to hold the young man's work. But Wulff knew it was a case of Paris and a fighting chance, or Copenhagen and "pot-boilers" all his life. So he marched on Paris, worked, starved, and had a marble accepted. Two years following his work was seen in the salons and the critics spoke kindly of his efforts and in confidence of his future; but profitable commissions were still beyond the horizon.

Things had just about reached the breaking point when the good idea that comes to all of us, if we stick long enough, came to Wulff. Why not combine portrait photography with sculpture? Why not turn the pleasure and practice he had found in the camera to making a living for him? Why not unite this knowledge with his years of art training and reap a practical benefit? He could still borrow money for a venture of this kind, and straightway proceeded to do so.

A studio, a beautiful studio, in the heart of the great, throbbing art quarter of Paris was taken. The comfortable couches, interesting benches, and attractive cabinets and shelves are all of Wulff's own building. We must grant that he had a wonderful place with unusual opportunities in which to display his ability as a craftsman; and it is only fair to admit that he made the most of the opportunity.

The selection of a proper camera, and all things else necessary to the work, was undertaken with the greatest care. But he found that having the art and mechanics of the work did not bring patrons any more than having the ability to work in marble brought him commissions in that direction. He had combined his two arts in the fond belief that a living would be forthcoming. The question of luring the sitter had yet to be answered. To comrades, acquaintances and occasional

WILLIE WULFF
PARIS, FRANCE

professional callers he was, and must continue, a sculptor. To openly announce himself as a professional photographer would not only tend to injure his prospects in his other art but would incline to lessen that rather intangible yet actual charm that many sitters would feel in having their photographs taken by a sculptor whose works are yearly seen in the salons.

So the idea of the tea came to his aid. Humble enough gatherings they were at first; but even poor artists often have friends and relatives in the "outer world" who have money, in not too large quantities, to spend. If an artist wished to please and impress such an acquaintance by taking him to the spacious studio of a comrade, why not drop around to see Willie Wulff, the sculptor? And if the artist, after having aroused all the delight and romance in his friend by showing him this wonderful studio, with its reception room, tiny salon, balcony sleeping apartment—where is also a model dark-room—and then pushes aside the curtains to the great working studio, with its mysterious clay formations, stones in process of completion and finished bronzes; if after this the visiting artist requests that his friend be shown Willie Wulff's portfolio of photographic portraits, can the friend help but be impressed?

The artists who drink Willie Wulff's tea, eat his cakes and smoke his cigarettes, do something more than introduce an occasional friend who may or may not have the purse and inclination to be photographed. They most certainly lend a local color to the gatherings. Most of us pretend to laugh at the "freak" artists and their weird ways, yet there still remains the charm, or interest, call it what you will, in association with them. Even while we joke about the garb and manner of these eccentric ones we never fail to mention an evening spent with

THE STUDIO

them, and to mention it on every occasion. Moreover it must be borne in mind that while some people dress as a pose, others do it purely as a business proposition—and yet a third class can no more help being original in their dress than some people can avoid being original in their thought expression. In fact, in "the quarter," that defined section of Paris where the artists work and live and play, where the motion-picture houses give the student a reduction in prices, to be here and dressed modishly is not only to be marked as an outsider but as conspicuous in dress.

So it is just as natural for Willie Wulff to wear, in his studio, a long corduroy smock fastened with old silver clasps of Dutch design as it is for you to wear the garments that fashion indicates. But why argue about that? If you could but see him on one of these Friday afternoons, holding his quaint, old lute, playing to accompany himself in some song from another land and time, if you are not pleased, if you do not go away reluctantly and return soon, if you do not delight in talking of the afternoon until your hearers beg to be taken at the first opportunity; if all this does not happen

PORTRAIT BY WILLIE WULFF
PARIS, FRANCE

to you—then I am sorry for you, but it serves you right.

There are those among us; good, worthy souls to be sure, and honest in their convictions, who will remark that all this side of photography, this spectacular side if you care to label it, is all much worse than tommyrot, and has nothing to do with real photography. They still go on the perfectly false theory that business is business, having never heard its explosion by the proven fact that "the chief business of life is being happy," and mighty good business it is. These people don't run a photograph gallery to entertain people. They believe that when a man with three-seventy-five passes their threshold, inward bound, he is inclined to have his picture taken and that it is up to them to get him into an ornamental chair, roll some ocean waves or landscape behind him and press the bulb as soon as possible. And the truth must be admitted that there is yet a large class of people who agree with this method of having their likenesses handed down to posterity.

On the other hand, Willie Wulff's belief is that photography is far more of an art than a business. He makes it a point to stifle any suggestion of haste whenever a patron is in his studio. In-

IS PERMANENCY THE AIM ?

BY "PROFESSIONAL"

IT is useless to try and disguise the fact that thousands of photographic prints that have been made and are being made are fading. The developed prints of to-day in black and white contain one important element that should be protected and thus prevent both change of color and rapid fading. That element is the metal silver that has been deposited in the process of development. All the while this deposit is not protected from the action of atmospheric sulphurization, the loss of the print is only a matter of a short time. Many, if not all, of the developed prints of the past ten or fifteen years used for book illustration, have all become changed in the main body of the picture into a graphite-looking bronze, while the whites, or what should be white, have changed into a jaundice yellow. The cause of this is not so far to seek as might be at first imagined. The writer made an experiment, or a real test as to the action upon the surface of a pure silvered, highly polished plate. One-half of the plate was coated with a varnish of a very simple description, while the other half was left uncoated, the plate being left exposed to the atmosphere, with the result that in two months the exposed portion became highly sulphurized or tarnished, while the varnished portion has not been affected in the least. Now the lesson that this teaches is that the metal silver in any stage must be so protected that the atmosphere and the sulphurous gases contained therein cannot act upon it, no matter whether it be in the form of a bright metal plate or in the form of a deposit in the photographic image, and as experience has proved that these prints do change, and change rapidly, too, they must be protected, or the photographer will find in the end, as his prints will be known as fadable pictures.

Prints may be easily varnished at a very slight cost with the following preparation by simply dipping them when perfectly dry into the liquid, draining them over a funnel so as to catch the drippings, then dried in a warm place, trimmed and mounted:

PRINT VARNISH.

Gum sandarac	160 grains
Wood alcohol	8 ounces
Oil of lavender	10 drops
Venice turpentine	½ dram

As soon as the gum has dissolved, the liquid must be filtered through absorbent cotton, to separate chips and minute insects that sometimes become entangled with the gum. After filtering the preparation will be ready for use. This preparation must not be used too near a flame, owing to its inflammable quality.

As far as permanency is concerned, no prints have withstood every test so well as those made by the carbon process, and it would be well for the photographer to produce all large and expensive prints by this process. There would be nothing to fear then from fading. Prints made by the carbon process would last; they have lasted substantially without change for over forty years.

Beneath such prints as these could be written the verse that the immortal Byron once wrote under a beautiful picture, his faith in permanency being expressed by this:

> Through hours, through years,
> through time, 'twill cheer;
> My hope in gloomy moments raise;
> In life's last conflict 'twill appear,
> And meet my fond expiring gaze.

There are many, very many prints made by photographers to-day that would not last long enough to support the above. Be this as it may, the aim should be to produce prints that are permanent, as far as it is possible to make them, and as a matter of choice there is platinum and carbon processes as free as the air for any photographer to use.

SEVENTY-FIVE YEARS OF THE PROGRESSIVE ART OF PHOTOGRAPHY

BY A. J. JARMAN

ON the 10th day of August, 1839, Daguerre divulged his process of producing pictures by the sun's rays upon silvered copper plates, and in the same year upon the 25th of January Henry Fox Talbot exhibited his "photogenic portraits," as he termed them, (they were photographs upon paper). That eminent philosopher, Michael Faraday, described the process before the members of the Royal Institution in London, while upon the 31st of January Fox Talbot read a paper before the Royal Society, giving a full description of his process.

The present year marks the seventy-fifth since photography was established by the introduction of the Daguerreotype.

It was in the month of March, 1839, that Sir John Herschel introduced hyposulphite of soda as a fixing agent, although he knew the solvent property of this salt upon the haloid salts of silver in 1819, and recorded the fact. Improvements took place rapidly in the production of Daguerreotypes, first by Goddard by the use of bromine, as well as the iodine of Daguerre, and further by the use of chlorine by Claudet. Following this improvement came the production of negatives upon paper by Fox Talbot, by means of which positive prints upon paper could be produced in any number. The heliographs of J. Nicéphore Niepce, produced in 1824, and his etched copper plates for use in the printing press, must not be overlooked, for it was this patient experimenter that invented photo-engraving, employing as he did the bitumen of Judea upon both silvered copper and copper plates; the vapor of iodine was also employed by him to aid him in his investigations. The one great step in practical photography was made by Scott Archer in 1851. Le Gray had suggested the use of collodion as a vehicle for holding the sensitive salts of silver, and had tried this out with the fluoride of silver and failed. Scott Archer introduced the iodides, and eventually the bromides in an alcoholic solution, and mixed this with collodion, this latter body having only been discovered a few years before by dissolving gun-cotton in a mixture of sulphuric ether and alcohol. Archer coated glass plates with this iodized collodion, which, as soon as it became set, dipped it into a solution of nitrate of silver, which gave an extraordinary sensitive coating, then upon exposure in the camera for only a few seconds the image was developed with pyrogallic acid and fixed in hyposulphite of soda, the result being a beautiful positive by reflected light when backed with any black substance. The discovery was soon made to turn these positives into good negatives by treating the portrait with a weak solution of iodine, then blackening it with a weak solution of hydrosulphuret of ammonia; after this the plate was washed, dried and varnished. Any number of paper prints could now be made of such a clear and brilliant character as had never before been known. In these early photographic days legal difficulties arose. The process of Daguerre had been given to the world in 1839, yet one Beard patented the Duguerreotype process in England, and Talbot had patented his calotype paper negative process in 1841. The Duguerreotype patent ended in 1853, and in 1854 the action taken by Talbot against a professional photographer named Laroche for using the wet collodion process which was regarded by Talbot as an in-

fringement of his patent, was lost. After this decision, the road for progress was clear. Photo-sulphate of iron came to be the universal developer, and cyanide of potassium the fixing agent. Collodion DRY plates were soon commenced, the first being made by Dr. J. Taupenot, and the process published on September the 8th and 15th in *La Lumière,* 1855. The process consisted in using both collodion and albumen. Dr. Hill Norris of Birmingham, England, produced collodion dry plates also in 1855, using pyrogallic acid as a preservative, while in 1856 he patented a process of making collodion dry plates with a porous film, which included any gum-like preservative to enter. The date of this patent was September 1st, 1856. The Fothergill process differed but little from that of Taupenot. Rapid progress was made from this time on. The opalotype was brought out by George Wharton Simpson in 1864, when for the first time a citrochloride of silver in collodion was used, both upon glass and paper. Collodion dry plates became a commercial article, and the invention of the solar camera by Woodward created an industry that hitherto had never been known. Photographs could be made to almost any size from a small negative by Woodward's apparatus. The method of printing in ink from copper plates, by the half-tone process, was being worked out by Baron von Egloffstein in 1860, in Philadelphia, and completed by him in 1864-1865. From this time printing from half-tone plates, made by use of a half-tone screen, commenced commercially. Fox Talbot was evidently the first person to discover that gelatine and bichromate of potash, when spread upon any object and dried and exposed to light, brought about insolubility in the exposed parts, while the unexposed parts remained soluble, as described in his patent of 1852. It was this underlying principle that formed the basis of the carbon process, photo-lithography and collotype printing. In 1855, Poitevin, a French engineer, applied this principle in several ways endeavoring to secure pictures in carbon, his principal work being defined in the founding of the collotype process. In 1858, John Pouncy, of Dorchester, in Dorsetshire, patented a method of producing pictures with a mixture of gum arabic, bichromate of potash and vegetable black. He named his invention the "carbon process" and showed some good results before the Photographic Society of London, in 1858. Pouncy's process is the gum bichromate process of to-day. The carbon process was made practical and patented by the late Sir Joseph Wilson Swan in 1864. A great improvement in the carbon process was made in 1869 by J. R. Johnson, and in 1874 came the one greatly needed invention of a flexible support, the discovery of the late Mr. J. R. Sawyer and patented by him. It was this most valuable discovery that put the final touch to carbon printing for the double-transfer process. The blueprint paper of to-day was the invention of Sir John Herschel in 1842. In 1871 the gelatine dry plate was made practical in place of collodion by Dr. Maddox, who produced some excellent results, one negative, a 3¼ x 4¼, the writer saw some years ago at one of the photographic exhibitions in London. These plates were not very sensitive, but in 1878 Charles Burnet, an English amateur, discovered that if the gelatine emulsion be kept at a moderate temperature, about 90 degrees Fahr., that the sensitiveness was increased enormously. From this date the rapid gelatine plate and rapid bromide papers became commercial articles. Ferrous oxalate developer came into use, a discovery of M. Carey Lea: following this came the developer made from the coal-tar derivatives, which to-day are practically the universal developer. The idea of employing paper in the roll for negative making in the camera was used in 1854 and 1855. The roll-holder, as it was called, is at least sixty years old. A patent was taken out in England on May 22nd, 1854, by two inventors, namely, J. B. Spencer and A. J. Mellinish.

In this invention it is described how two rollers are used to wind and unwind as much of the paper as it is desired to expose upon a long strip of specially made sensitive paper and re-

BY CLARA OSBORNE
BIRMINGHAM, ENGLAND

wound after an exposure has been made. Leon Warnecke in 1871 invented an improved roll-holder, employing two rollers with metallic ends. He also prepared paper with a sensitive collodion film, which after exposure and development, could be stripped from the paper. Excellent film negatives were made by this means, as many as 100 in a roll, but the stripping process did not seem to take hold upon those photographically inclined. Captain Barr, in India, in 1855, invented a roller dark slide, a description of which was published in the *Journal of the Photographic Society* of Bombay, April 21st of that year. Further improvements in the construction of roll-holders was made by the Eastman Walker Co., of Rochester, N. Y., in 1885, the workmanship of which was of a very superior character. What was needed to make these photographic appliances complete was a suitable transparent film, one that could be made to hold the emulsion firmly without stripping. Warnecke prepared a sensitive film in 1885 by coating a collodion base with a gelatine emulsion. Two years after this event, on May 2nd, 1887, the Rev. Hannibal Goodwin, of Newark, N. J., applied for a patent, the serial number being 236,780, in the United States Patent Office. There were numerous delays caused by warding off opposing contentions, and eventually a patent was granted on the 13th of September, 1898, the number being 610,861. The use of nitro-benzole being employed for its peculiar properties with the other solvents of nitrocellulose, forming a film apparently well adapted for the purpose designed. The reverend gentleman was not the inventor of celluloid; this material was invented by Alexander Parks of Birmingham, England, in 1865, and carried out to a commercial point by Hyatt of Newark, N. J. John Corbutt, of Philadelphia, appears to be the first person to employ CELLULOID as a support for a sensitive surface. The writer possesses two of such negatives made by John Corbutt, with a gelatine emulsion made in 1884. Reichenbach followed Goodwin with another patent of a similar character. Both these inventors foresaw the value of a light, transparent body as a photographic basis in place of paper or glass. The daylight loading and unloading of the sensitive film appears to be the invention of an amateur. It was described to the Rev. A. M. Macdona when he was visiting in Norway, Sweden and Denmark in 1886. He had left his changing lamp behind and borrowed one from another amateur so as to change his rolls of films, when the amateur told him that he could make the change in daylight perfectly safe by sticking a piece of non-active paper upon each end of the film before commencing any exposures, taking care to roll the film and the paper up tightly. The amateur again stepped in here and placed the finishing touch and brought about the daylight loading film. It was by the discovery of celluloid and the several additions that has made the negative and positive films used in the cinematograph possible to-day.

The great desideratum needed to-day is a non-ignitable film, and this end is being rapidly approached, judging by the samples the writer has already tested, and advances are being made towards preventing the rapid ignition of the celluloid films in use at present. A number of new industries and professions have been created by the art of photography. The enormous trade that has been created in photographic instruments and appliances, the manufacture of dry plates, sensitive films and paper, consuming no less than seven tons of silver per month by one firm alone, the business of photo-engraving, special paper for photographic use, and the manufacture of celluloid for films of every kind used in photography has opened up an entirely new industry, employing thousands of hands never before thought of. A new field has been opened up for actors and actresses, new playwriters have been called into existence, new theaters have been built, new photographic apparati have been designed for the rapid production of film negatives, special projection machines have been called into existence, and as a result a new class of operator has been required, thus creating a livelihood for thousands of individuals. Trades of all kinds have

been benefited by the use of correct representations of their goods. The astronomer has found in the sensitive plate a faithfulness of recording the impressions of the heavenly bodies and every kind of celestial phenomena. The flight of the projectile is also accurately recorded, and the invisible ultra-violet, ultra-red, and the radiographic rays impress their lasting record upon the photographic plate, even the microscopic germ is magnified and presented to our view by the photographic art, which discovery in its practical application has proved to be one of the most beneficial in many ways of the various arts discovered and applied by man in the course of its seventy-five years of existence; where nature has been compelled to record many of its secrets and turned to account for the benefit of mankind.

PROFITABLE SIDE-LINES—DOLLARS IN THE COUNTY FAIR

BY A. E. SWOYER

WITHIN reaching distance of practically every town in the country large enough to support a photographer, a "Fair" of some sort—State, County, or merely local—is held some time during the months of September and October. These affairs are usually of short duration, never lasting more than a week, but for the professional who dabbles in commercial photography as a sideline the time is one full of opportunity; a chance justifying the placing of the studio in the hands of an assistant, or even closing it altogether.

This opportunity, of course, has nothing to do with the button-machine or the gaudy tent of the wayside photographer who follows such fairs with catch-penny devices—these are things legitimate enough, perhaps, but at least outside the field of the established professional in spite of the money to be made thereby. There is dignified work enough and to spare to keep the average man hustling and to pay well for the time and trouble involved.

The photographer must realize that the fair is not strictly a place of amusement, but a market and a battleground of competition as well. There will be competing exhibits, ranging from the housewife's corner of jellies, cakes and patchwork quilts to the live stock and poultry sections of the big farms. It is this business side of the fair that it is the photographer's business to cash in.

For example, the fact that stock farms enter the best of their herds in such competition implies that either the animals exhibited or their progeny are for sale, and that the owner is willing to spend a certain sum for advertising. Granting this, why not go to the owner and suggest the advisability of having photographs of his prize stock made to use in his advertising as well as for his own satisfaction? There should be slight difficulty in making this necessity plain, since prints from such negatives can not only be used in connection with replies to individual inquiries, but cuts made from them add force to such magazine advertising as he may do, while other points will easily be apparent to a keen business man. Having carried your argument successfully this far, it's a poor man who can't logically prove that the best time to have such a photograph made is at that time and place—where the best specimens are separated from the common herd and so penned in as to be easy to photograph—and that the photographer, being the man on the spot, should also be the man on the job.

Granted, then, that you have secured the opportunity sought, some points must

be observed if you would develop it to the satisfaction of your client and of yourself. Unless you are a judge of live stock, have the owner with you when you make the exposure—he naturally will wish to have the print accentuate those points about the animal which are good and equally to subdue or eliminate those which are poor. There are also other points upon which a satisfactory advertising photograph depends and upon which an expert stockman will be in-

BY HALLIE WILSON
BERLIN, N. H.

formed; thus, in "taking" a milch cow, the animal should be placed broadside and the camera level kept low, with one leg of the animal advanced in order to show the development of milk veins and udder. In fact, most animal photographs are made from the side, and, as the creature may have to be held by a nose-pole or rope while the exposure is being made and as the background will under most circumstances be objectionable, it is often necessary to block out portions of the negative; whether this is of advantage or otherwise depends upon circumstances. Incidentally, it is a good plan to solicit orders for such photographs and if pos-

BY HELMAR LERSKI
MILWAUKEE, WIS.

sible to make deliveries and collection before the judges award the ribbons; the point of view, and the liberality of the exhibitor may be affected if he fails to receive an award.

The above ideas, and others along the same lines, apply to many classes of exhibits—particularly to live stock, poultry, and similar classes. Vegetables, and similar items, must be handled in a slightly different manner inasmuch as the photographs will not be used for advertising to any extent but merely to gratify the pride of the owner. Hence a different appeal is necessary, and you will have to suggest to your prospective client that fruits decay and blue ribbons fade but that a photograph of his prize-winner will endure. This may seem like a piffling sort of business, but fair prices may be obtained and it involves but little extra trouble on your part. And—it all helps to pay expenses.

There is opportunity, also, in the miscellaneous household exhibits although it must be handled in a different manner. It would involve too much work to photograph each small exhibit, and take too much time to chase up individual owners

—but how about making general photographs, to be sold at fifty cents each, of every table or booth? Once taken, prepare sample prints and place them on exhibition "on the spot," either in the care of a small boy authorized to take orders, collect and receive a commission, or else simply with a card attached advising that orders will be received at your address or that prints may be purchased from the ticket seller—it will not be difficult to make an equitable arrangement with that gentleman.

BY BAYARD WOOTTEN
NEW BERN, N. C.

Then, of course, there are the larger booths of the manufacturers and supply dealers; these are quite often in charge of some salesman or junior member of the firm. With this fact in mind, suggest to him the advisability of having a photograph made—and bear strongly on the beauty or the completeness of the exhibit as a reason. The real appeal, of course, will be somewhat different and based upon the desire of the salesman to show his own importance and connection by means of such a photograph, as well as by his wish to have something to show to his superiors in proof of his ability and the completeness of the exhibit. Inasmuch as but few prints from such a negative will be sold, don't hesitate to

BY THE HEYN STUDIO
OMAHA, NEB.

charge a good price for making it—and, on the other hand, do not be surprised if sometime later an order for extra prints or enlargements comes from the head office of the firm represented. In fact, if such an order does not arrive, it is only good business to solicit it.

Should you find that the proper development of the ideas suggested does not fully occupy your time, you can catch an odd dollar or so by miscellaneous photography—particularly if your camera is fitted with a fast lens and shutter. Thus, record some of the stunts of the "Wild West" performers, and be surprised at the number purchased by individuals as well as by the management—and, if you have time, put a few postals or cheap prints from the negatives on general sale, for fair crowds are spenders and more than ready to take home evidence of the wonders seen to those at home. Be handy when athletic events are run off, and catch the horses under the wire in

the trotting events—you may not be able to sell to any but the winner, but he will have the prize money in his pocket and be willing to separate from a reasonable chunk of it for a record of his triumph. If you are extra ambitious, you may be able even to line up the fair committee or the judges for a group photograph—with the usual profit attendant upon that class of work.

In short, the opportunities of the county fair are almost limitless for an energetic man; nor need they end at the culmination of the fair itself, for at the risk of seeming to harp endlessly upon one subject I would mention the wide sale that photographs procurable at such times may have with newspapers and magazines. First, of course, come general views—and even those of a more personal nature, such as exhibits and "stunts"—for which the semi-metropolitan papers offer a ready market; promptness in getting these off is essential to success. Live stock photographs, as well as those of poultry and vegetables, will be snapped up by the agricultural journals and by the papers specializing in those fields; they pay from fifty cents to five dollars per print, and most of them will permit the sale of other prints to magazines not too closely touching their field. And then—but why continue? If you can't find enough in the foregoing list to keep you busy, you are a mighty fast worker and deserve to have the balance of your time as a vacation.

In short, like everything else the county fair is full of opportunity for the man who is on the lookout for it, and the average worker who is willing to sacrifice a little dignity and hustle a bit should be able to make enough to pay for his trouble—and to have a deal of fun in the making.

THE CHANCES OF MOVING-PICTURE PORTRAITURE

BY SIDNEY ALLEN

PROPHECIES and predictions are always unreliable. But sometimes an idea hangs so palpably in the air, as it were, is occupying so many minds, and is so forcibly suggested by the successful manipulation in some adjacent field of activity, that one is justified in indulging in some speculation upon the subject. We now all realize that aerial navigation of some sort is a certainty of the new future, although it was still laughed at less than a decade ago. It is the same with moving picture portraiture.

Some of the minor moving picture companies have been busy promoting the idea, and it can be said without exaggeration that the two or three leading photographers of every larger town have given the matter some serious thought. Several of them own moving picture cameras and projection machines, and a few have ventured as far as actual experiment.

The possibilities can hardly be disputed. The next great step in advance of portrait photography will be moving picture portraiture. The paramount idea is to reproduce incidents from the life of a sitter—either the actions of daily existence or events of special interest—on reels from half a minute to three minutes' length. For instance they would depict children at play in the nursery or on the lawn, a family group on the porch, a party with the arriving guests, the start for a ride or an automobile drive, the business man at his office desk dictating or giving orders, a wedding with the procession of bridesmaids, etc. All the various occupations of professional men, and events in the life of a family—the child meeting the father coming from work, tea parties and picnics, and special pleasures like fishing, a ramble at the seashore and all the various sports—would contribute towards the repertoire of "portraiture in

motion." And the simpler and more natural the action would be depicted, the more gratifying would be the result.

Still, there are many difficulties to overcome before this style of picture making could become truly popular.

It would appeal only to the well-to-do-classes, for it does not only necessitate the purchase of the reels but also a projection machine, the price of which, I believe, is about one hundred and seventy-five dollars. This should cause no particular obstacle, as people who can afford victrolas and pianoplayers could also be induced to invest in this new pastime, of showing themselves in actual motion before a gathering of friends. And no doubt these reels would prove of permanent interest if—there were other reels (ordinary moving picture plays) on the market to alternate with the more intimate domestic scenes. The complaint of the few persons I have met that own a projection machine is that there is not enough material procurable to make it worth while of owning a machine. Only when reels for parlor purpose will be as plentiful as musical records, will there be a steady demand of moving picture machines, and only then will the battle be half won for the professional who wants to take up this innovation seriously For it can hardly be expected, nor is it practical, that the gallery owner should become an agent or salesman for these machines, at least not under the present conditions. It would necessitate too much promotion. To introduce moving picture portraiture to customers in the regular studio would in itself be a sufficiently hard task, as much as any reception-room lady could conveniently handle. I am rather inclined to think that a studio for moving picture portraiture had to be a separate establishment, devoted just to that one thing and nothing else.

The second difficulty is the outfit. It would demand quite an investment. There had to be an apparatus with the necessary equipments for out-of-door work, for instance to take golf players in action, tennis players, a riding party, etc. The majority of pictures, however, had to be taken indoors. Home portraiture in the way as it is practised for ordinary portraiture is well nigh impossible. So it would necessitate special furniture, property and solid or at least a special kind of backgrounds (as painted ones would in most instances lack the sense of reality). To reproduce a church interior for a wedding party would be one of the many backgrounds that would cause considerable trouble. Of course, all these things are done by the moving picture people, but consider the size of their plants and the expense they go to. And for that reason I have always a vague apprehension that the first studio for moving picture portraiture will be opened by one of these concerns, or by an operator who has actual experience in taking moving picture plays.

By far more problematical than this "stage setting," however, is the lighting. Very few metropolitan studios have any available space for out-of-door work, and even if they had, it would hardly be available, as dark days and cold or rainy weather would not permit of any operation out-of-dors.

Most of the work had to be done indoors. As far as I know the largest artificial lights on the market for studio use would not be sufficient to give a clear image. A special light had to be procured and its perfect manipulation would necessitate weeks of practice and experiment. The manipulation would need considerable experience and training. I found that two about equal sources of light, pouring from both sides upon the performer invariably produced a diffused image. One light killed the other. It is also bad for the shadows.

There must be composition, and light and shade division in a moving portrait as well as in an ordinary portrait. As far as I know studios, none is sufficiently equipped at the present moment to take a technically perfect moving picture.

While in St. Louis, several attempts were made to make a moving portrait of me. In one, the reel was three minutes long. I enacted the part of a writer coming home, taking off his coat and hat, looking over his mail, and sitting down at the table to write. At first no idea

would come, then after taking a drink and lighting a cigar suddenly some train of thought suggested itself. I wrote for a few seconds, got up and read it over, put the MS. in an envelop, took my hat, and left "the stage" to mail it. The manager of the moving picture company told me the next day, that as far as action was concerned it was a perfect reel, "it wasn't done by an actor and yet it is all there." What did he mean by this, that the action was natural and not mechanical, awkward or stagy! Well, I extemporized what is really my occupation, I did not even rehearse it, but he must not forget that I am used to platform work. An advantage that is denied to the average sitter. How will the operator instruct the sitter to give a résumé of his profession. Rehearsing may help, but will not the movements become more and more stilted? And imagine to put children in a narrow cave of light, glaring and disagreeably warm and to expect them to play naturally. The professional has just about overcome the timidity and awkwardness of his sitters by rapid exposure, and now he is supposed to confront them with conditions, that are by for more exceptional than any that existed under the traditional skylight.

It seems that the photographer will have to take a special course in stage managing, and to apply this knowledge to a stage not larger than 10 x 6. More than ever will he be obliged to be a master of composition. He will deal more frequently with groups (one of the weak points of the American professional) and instead of one permanent attitude he will be obliged to control a hundred poses in quick succession. Also his audience will be more critical than that of moving picture houses. Of course, action in itself will help.

If a person is made to move about, sooner or later the action will assume a natural aspect. But the taking of moving pictures is really a new profession, demanding experience and special training, and whether it would be wise for anyone with a well established and paying studio to plunge into this new venture is a matter that the writer of these lines can not undertake to solve. It would take an investment of thousands, and the studio, after being properly equipped, would not be in regular working order for many months. And yet it is bound to come. And there will be big money in it for the right men or right concern, as soon as it is properly launched. No doubt moving-picture portraiture will go through many stages of development, but it is a thoroughly practical idea and will be successful from the start if guided by expert advice and help.

A FEW HINTS ON POSING MEN

BY JOHN A. TENNANT

THERE are few things which the photographer is so reluctant to undertake as a half or three-quarter figure pose of a man. If you look over the work displayed at any studio, you will find that the portraits of men are almost invariably "heads." "You can do nothing with a man in everyday dress; he is so stiff and ungraceful," is the explanation generally offered when inquiry is made. One consequence of this want of courage is a lack of familiarity with the masculine figure which, naturally, results in failure when work of this sort has to be made to order. The amateur, on the other hand, with his simpler and more direct methods, knowing nothing of that fear of the public which restrains the professional worker at every turn, tries all things, including figure studies, and hence his figure portraits are, as a rule, acceptably interesting. I would like to urge

professionals to give more attention to this neglected field as one which affords abundant room for their skill; and I will be glad, indeed, if anything in these hints will encourage my co-workers under the skylight to attempt to figure more often in their portraits of men. There is really no difficulty about the work which cannot be overcome by observation and practice, and, assuming a reasonable knowledge of composition, no branch of portraiture is more fascinating than the treatment of the figure.

In poses of men, where more than a mere "bust" is desired, the principal difficulty is to secure variety and naturalness without strain or affectation. This is, in part, due to the severity of the lines in masculine dress, and the self-consciousness (with its accompanying rigidity), of the average man when he faces a camera. These conditions being constant, the photographer easily falls into the employment, for all his portraits of men, of a few stereotyped poses which have been found to be acceptable. These stereotyped arrangements, which are well known, are the things most of all to be avoided, while, at the same time, attempts at novel or fancy poses should be shunned with equal aversion. Simplicity is the key to success. In portraits of men we want character and virility rather than novelty or prettiness. If we have strength and ease we can dispense almost with grace. If grace can be combined with these, so much the better, but the dominating qualities expressed in the pose should be strength and action, as befits manhood. If we look over a collection of portraits by modern painters (who necessarily give more study to the pose than the photographer has time for), we will find that in their portraits of men they rarely attempt anything beyond the simplest pose. Usually the pyramidical form of composition is adopted as most expressive of stability and symmetry; whatever grace the subject may possess is judiciously emphasized by convexity of outline, and long, flowing interior lines; the rest is accomplished by harmonious lighting and the obtaining of a characteristic expression to give likeness.

If a standing three-quarter or full-figure portrait of a man is desired, we must seek, first, an easy attitude; second, a pleasing variety in its lines, and last, but not least, a graceful disposition of the hands. The attitude should be characteristic; every man has his favorite poses, which he takes unconsciously when he feels "at home" in any place. Some of these lack grace, and the endeavor should be directed to finding which of the natural attitudes of the man is most graceful. This can most easily be accomplished by allowing the subject to move about the room at his leisure, when his manner of carriage may be observed. It is folly to at once place a man in this or that predetermined position and "arrange" him to suit your notion of how he should appear. This can only result in awkwardness. In many of the portraits we see of men it is obvious that the subject has been made to take an attitude altogether strange to him, and naturalness cannot be expected under such circumstances. Another very important point in the disposition of the figure is to see that the subject does not rest equally on both feet—something which is wholly incompatible with ease. Attention to this will not only secure ease, but also give a greater variety of line to the pose. Speaking generally, old men give a better line when seated, and an easy chair, with its ample flowing lines, gives to such subjects the graceful dignity which belongs to age. Younger men, especially those with slight figures, can rarely be made to look comfortable or graceful when seated, and, still speaking generally, such subjects are best handled on their feet.

The placing and arrangement of the hands in portraits of men are matter of considerable difficulty. The first care, since they catch the light almost equally with the face, is to see that they do not appear exactly opposite to each other, or form any definite geometrical figure in relation to the face. When they are brought together care is needed to secure a pleasing outline, so that they shall not appear awkward in shape. Neither should the two hands be separately occupied, as this would draw more attention than they should otherwise have in a portrait and create confusion. Some-

times the hands are so placed that, even though both are not occupied, each attracts the eye. This can be avoided by subordinating one or both in tone or "value."

The general lines of the pose of a man should, of course, suggest animation, but too much action should be avoided. Remember that angles suggest action, unrest, and motion; vertical lines support; horizontal lines, or long horizontal curves, are expressive of dignity and repose. An excellent method of studying

BY HALLIE WILSON
BERLIN, N. H.

the disposition of the masculine figure is a lay figure of small size.

The supreme interest in a portrait is likeness, the portrayal of personality. Our first care, therefore, must be to make sure that the attitude or disposition of the figure shall accentuate or harmonize with the character revealed in the face of the subject. The photographer labors under great disadvantage in this; he usually sees his subject for the first time at the actual time of sitting, and there is little opportunity to study what is characteristic. With the amateur things are different; his subjects are generally people with whose life and manners he is already familiar by association. Where these are not known, it is well worth while to delay the sitting a few moments, and by conversation or other means to cause the subject to forget the work of the moment and unconsciously express those little details of manner or attitude which "make the man." It is evident from this that the pose must be dictated by the nature of the subject, and herein we get our first glimpse of those principles which, to my mind, are of the greatest importance to the portraitist: simplicity, concentration of interest, and subordination.

As to various forms employed in the composition of the figure, I am not sure whether it is wise to say much about them here. The reader who will treat his subject with the aim to get grace of line throughout the figure, bearing in mind the elementary principles which have been referred to should be able to get a pleasing pose without working for any definite form. The principal forms are, however, the pyramid or triangle, which may be inverted, erected, modified in height or base width; the circle, ellipse, and an oval figure within a rectangle. Of these the pyramid is peculiarly adapted for the single figure and has in consequence been overdone. The ellipse has advantages for large groups, while the oval within a rectangular space may be used for groups of two or three persons. It cannot be too strongly emphasized, however, that these forms should only be suggested when employed, and that their too close following in the *contour* of the pose gives stiffness and formality.

Attention should also be given to the proportion of space occupied by the figure within the confines of the picture, and to the shape formed by the relation of the outline at various points to the bounding lines of the picture. Large areas of background are usually to be avoided unless isolation of the figure is intended or desirable. Figures which are too large for the space they occupy are unpleasant; if too small, the effect is stagey. A little effort will enable the operator to choose both the place and proportion for the figure needed to produce the most pleasing effect in the portrait.

BY HELMAR LERSKI
MILWAUKEE, WIS.

BY FRANCES AND MARY ALLEN
DEERFIELD, MASS.

BY FRANCES AND MARY ALLEN
DEERFIELD, MASS.

BY CLARA OSBORNE
BIRMINGHAM, ENGLAND

BY THE HEYN STUDIO
OMAHA, NEB.

PHOTOGRAPHY IN GREAT BRITAIN

A Review of the Month from our own Correspondent

LONDON *August*, 1914.

In organized professional photography the month has been an eventful one. Another widely representative convention of photographers, mostly with professional interests, although a few distinguished amateurs attended, has been held, this time in the historic Scottish city of Perth. To describe the gathering as a success merely would be an inadequate form of expression, for on this occasion the weather was particularly kind and the excursions were quite the feature of the week.

The Twenty-eighth Convention.

The municipality of Perth extended a cordial welcome to the Photographic Convention of the United Kingdom upon the occasion of its second visit to this city and for the different lectures and papers the City Hall was placed at the disposal of the members. After the civic welcome on Monday, July 6th, Mr. F. J. Mortimer vacated the presidential chair in favor of Mr. G. W. Atkins (of Elstree). The following day an important and instructive demonstration of the new "Raydex" process of natural color photography was given by Mr. J. Brand. The apparent simplicity of this process which permits of the production of ordinary monochrome prints from the negative in the ordinary way, has much to commend it to the professional photographer desirous of introducing color-work into the studio. Another point in its favor is the all-important one of cost. What were described as the most magnificent set of autochromes ever exhibited were shown by Mr. E. A. Biermann, of Birmingham, and in view of the high compliments paid by notable workers to Mr. Biermann's work, a short study of his *modus operandi* might be useful. In the first place Mr. Biermann never uses any other developer for autochromes but Quinomet, and this at a very low strength. The regulation of the time of development is another problematical point in color work and in this he also has a system of his own. Suppose the image appeared on the autochrome 10 seconds after immersion his rule is to multiply this by the same number and then by 4. Thus the correct time of development for a plate with the image appearing after five seconds is 100 seconds (1 min., 40 sec.).

A modest but representative display of amateur and professional photography was on view at the convention and comprised a number of prints by local workers. The only American contribution I noticed was a collection of pleasing portraits by Mr. S. Goldensky, each noticeable for its "atmosphere" or diffusion of subject.

Next year's convention has been fixed to take place at Caen in France. This will be the third occasion upon which the British convention has been held abroad. With a little hope and patience we might yet see the annual event take place within the U. S. A.

A Well-Known Portraitist.

Following the reference in my last communication to the famous London portraitist firm of Maull & Fox comes the announcement of the death of Mr. Henry Maull, the senior partner in the firm.

Orthochromatism Without Screen.

At first thought it appears a little too much to expect that it is possible to obtain a fairly correct orthochromatic negative by means of an ordinary plate and without the use of a supplementary taking screen. For several years a special type of plate has been upon the market known as the "non-filter" plate and for it was claimed that tone color renderings were possible by simple exposure. To a certain extent the claims of the makers were substantiated and amongst professionals as well as amateurs the plate still finds favor. In view of the difficulty of obtaining a life-like portrait of a sitter with very light hair with an ordinary plate, it is strange that professional photographers do not devote more time and study to the question of tone color values. The disadvantage of utilizing an orthochromatic plate on the ground that the screen unduly prolongs exposure no longer holds good as an excuse for giving a light screen and an ortho plate with a speed of 400 H.&D., the exposure need not be uncomfortably protracted even in the most badly situated studio. Or if the light is too poor to warrant the use of a screen at all a simple alternative would be to try a "non-filter" plate which has a speed of about 230 H.&D. Especially where pictorial backgrounds are introduced it is well worth the trouble to obtain faithful color rendering. The result is a more stereoscopic background. An otherwise good portrait is frequently spoiled by the chalky appearance of the background, however carefully it may have been painted. In groups taken outdoor the scope for the use of a "non-filter" plate is consequently greater and a shorter exposure is permissible. It is safe

to say that 75 per cent. of outdoor groups are taken with a stone or brick building as a background and when this comes out on the print as a dark towering mass over the heads of the sitters, the photographer has either to resort to a judicious use of the trimming knife or be content with a harsh, unartistic print. It is clearly a case for the screen or for a plate such as I have mentioned. Indeed so increasingly popular has the "non-filter" type of plate become that two more manufacturers of plates in this country have it on their lists. There are odd moments when a very good orthochromatic effect can be secured in a natural way. A Glasgow writer instances the remarkable potency of the sun at sunset. The yellowness and density of the rays are such that accurate color values appear on an ordinary negative taken an hour or two before sunset.

Telegraphic Transmission.

Two agencies in London are at the moment exceedingly active in their researches for the discovery of a practicable system of transmitting photographs by telegraph. Mr. T. Thorne Baker, backed up by a London illustrated newspaper, has made wonderful progress and it would not come as a surprise to hear him make some definite pronouncement. Meanwhile a company called the Photographic Telegraph and Cable Company has been formed to work another patent, technical details of which have not yet been disclosed. A demonstration was recently given in London and for the system it is claimed that photographs and drawings can be transmitted a distance of 800 miles with the rapidity of an ordinary telegraph message and at not much greater cost. The company named shortly intend to open up receiving and despatching stations in the chief cities of Europe.

A Handy Reducer.

Methylated spirits, although well known to photographers and often in employment with press workers as a rapid drying medium, is not used in the capacity of a reducing solution every day. However, when a dense overdeveloped part of a negative has to be reduced quickly it can be treated to the best purpose with a tuft of soft rag soaked in methylated spirits. With the rag rub vigorously the portion to be reduced, taking care not to scratch the surface of the emulsion. Reduction is gradual and it is soon seen when the action of the spirit requires arresting. Wipe off the surplus moisture with a piece of clean rag and place the negative in a draught to dry. After a few minutes it is ready for printing, but if time is of no importance it is better to wash the plate after reduction in this manner.

Home Sensitized Postcards.

A London dealer has introduced a useful novelty for amateur postcard makers. It is a gelatine coated postcard which before it can be used must be sensitized by the worker himself. The cards are not expensive and the formula of a bichromate sensitizing solution is clearly set out. The cards only require a short bath in the solution and when hung up dry rapidly. The developer is proportionate in its cost, being water.

Daylight Development.

An invention lying for acceptance at the Patent Office may probably popularize tank development of dry plates. The apparatus is a flat, shallow, rectangular developing tank to hold two plates. By means of a specially constructed dark slide the plates after exposure may be conveniently slipped into the tank without being exposed to light. The developer is poured in through a spout and after use is drained off through a plug in the opposite end of the tank. It is claimed that by means of a number of grooved slides that a dozen plates can be treated at once upon this principle.

A Curved Lantern Screen.

A London experimenter has evolved the idea of a curved or cylindrical screen for the display of lantern views. When a slide is projected upon a curved surface such as the one described the detail obtained is sharper and more brilliant and the result a more stereoscopic projection. In order to avoid distortion the lantern slide must also be curved in the same way. The same principle, it is stated, can be applied to moving pictures.

An Offer to Provincial Photographers.

The Kodak Company has just issued a generous offer to professional photographers residing in the provinces. It is the custom for many artists to make periodical visits to the metropolis, either for the purpose of making purchases or to see the latest fashions in photographic work. Few, if any, can afford to maintain a London office and it is in this connection the Kodak Company come to the rescue. In their handsome new building in Kingsway they have equipped several offices to be placed at the disposal of provincial visitors. Everything in the way of stationery, telephone, stenographer, etc., is provided for their exclusive use for the asking.

War Photographs.

At the time of writing this country is on the eve of a great war. It might yet be prevented but that almost seems beyond hope. Since the last British war in 1900, photography has grown "some" and in view of the elaborate preparations made by newspapers and private companies to secure war illustrations, we are promised unusual activity from photographers on the field. Undoubtedly many of these will find their way to the United States and photographers may find it possible to arrange with the newspapers to exhibit the prints after reproduction. They will make an excellent window attraction. J. B. SUTCLIFFE.

EDITOR'S TABLE

Photography and Business

A STUDY of the conditions governing the photographic world and those governing the world of business reveals some very interesting facts and offers instructive material for comparison. Photography has been called, and justly, a business dealing largely with the luxuries of life. It is a business that depends for its support upon the voluntary rather than the compulsory payment of its charges. The public can exist without photographs, unlike bread, flour, meat, and the staples of life. Years may come and go, as they often do, between the times that one or more members of a family contract any indebtedness at the photographer's. In this particular sense photography is unlike a very large number of other lines of business, but as we look about and study the conditions we find that there are many other lines catering also to the luxuries of life and supplying products which the public might be deprived of for months or years without any great discomfort or disadvantage.

Let us then for a moment look at some of these other lines of business not absolutely necessary to the health or life of a community, and see what comparison can be drawn between them and our own chosen line. Taking as a basis of our investigation a late report made by one of the many large addressing and commercial agencies of New York, we find that there are in the neighborhood of 16,000 professional photographers in the United States at the present time. This list includes practically every studio and gallery, large and small, prosperous and bankrupt. Those of us who are at all familiar with the conditions governing the photographic business in this country know that the proportion of prosperous, money-making photographic studios is extremely small when compared with the total of what we may call 16,000. There are, however, within the same territory almost 11,000 concerns dealing in jewelry, and more than 22,000 business houses dealing in music and musical instruments, and more than 25,000 selling confectionery, about 12,000 engaged in selling automobiles, and 42,528 different concerns interested in making and selling cigars, while scattered about among them all are 16,273 theaters, which cater to hundreds and thousands of people every night throughout the entertainment season.

Are any of these several lines of business more necessary and important to the health, happiness, comfort or existence of the great American people than those other luxuries which emanate from the progressive, up-to-date photographic studio?—those so-called luxuries, which long after the plate is worn from the jewelry, or the dulcet tones of the orchestra have vanished into forgetfulness, still present to the dear ones left behind the living likenesses of loved ones gone long years before? Is there any reason why, under the same conditions, jewellers, confectioners,

cigar dealers and theater managers should acquire wealth and competency while the photographer, starting with little or nothing, barely holds his own through life. Almost every one of these several lines of business and many others involve the carrying of more or less expensive stock, the payment of high rents, and, in many of them, the employment of a large and expensive force of clerks and assistants. These businesses may, one and all, be justly termed businesses that cater to the taste of luxury, businesses which, like photography, might largely be done without, and yet they are, in general, prosperous, profitable, and, in a large number of cases, the source of immense wealth. The photographer, on the other hand, carries no expensive stock, orders his materials from week to week or month to month to meet the demands upon his business during that period. These demands he may always gauge with accuracy, and his only outlay is the equipment of his studio; his rent, which beside the other named lines of business, is universally lower, and the payment of his staff of employes, which also in comparison is inconsiderable. Agreeing that these several assumptions and statements are correct, there is, it seems to us, one thing and only one that accounts for the tremendous difference in the financial standing and prosperity between the photographer and his several business neighbors. That one thing is the business education and experience with which the equipment of each must begin, but which, in the case of the photographer, often is not acquired until so late in life as to seriously handicap his onward march to prosperity. There is, we believe, growing up in our community a class of photographers, men young in the ranks of photography, but keenly alive to the business interests with which the whole world about them is teeming, who are to-day building for themselves better photographic business than many that have been established in this country since the early years of photography. These men are creating in the communities in which they live a demand for good photography, and meeting it as fast as it can be created.

Why should we not create a photograph habit? It can be done in any community of any considerable size, and once it is established it becomes as much a habit as does the theater habit. Think for a moment what would be the business of a photographic studio in any part of the country if it might claim one-twentieth part of the patronage accorded to the movies in the same section. There are more theaters in the United States to-day than there are professional photographers. One offers to its patrons a few hours' transitory enjoyment or recreation each evening. Many people patronize the movies two or three times a week, receiving for their money absolutely nothing of a tangible nature, while if the same amount of money were spent with the photographer once each month, or even twice a year, they would take with them tangible results of present, everyday interest, which in future years will become of priceless value. The photograph habit has never been cultivated as it should be in this country or elsewhere. The field is open, and the progressive photographer who sees it and acts upon it will reap his reward. *He will not see it, however, until the profession as a whole can get outside the dark-room far enough to throw off the fog which has enveloped the business end of photography for the past two or three decades.*

It may be asked, "How is this business end of the studio life to be developed?" There are many ways. If the technical work of the studio consumes the entire time and attention of the proprietor, let him look about for some bright young man or woman in his employ to whom he may teach, or rather whom he may allow to teach him a way out of the difficulty. Encourage him to read up along advertising lines and to become posted upon the live business questions of the day and the methods by which their neighbors are rapidly and steadily progressing toward prosperity. Make it an object for him to acquire some insight into the ways and means by which business success in other lines of work is achieved. *The problem is a personal one in each and every studio.* It is one with which the proprietor himself should grapple, where he can, but the claims of each and every studio upon its buying public should be made evident and brought prominently to the attention of every person at least several times a year.

When, after careful study of the conditions under which the studio business is conducted, the best method has been found for bringing these claims to the attention of the public the method should at once be put into operation.

Whether under the hands and leadership of the studio proprietor, one of his own personal staff, or an outsider familiar with photographic requirements and advertising methods, it is for him to say. Once adopted, however, it should be followed out with persistent, dogged perseverance, and the results will prove the wisdom of the plan.

TRANSLATIONS AND ABSTRACTS

BY E. J. WALL, F. R. P. S.

The Permanganate Bleacher

Blake-Smith points out that it is sometimes required to convert a sulphide-toned print back to the ordinary black and white, and suggests the use of the following:

A.

Potassium permanganate ..	2g	5 grains
Water.	1000ccs	5 ounces

B.

Salt.	50g	¼ ounces
Alum.	50g	¼ ounces
Sulphuric acid c.p.	10ccs	25 minims
Water.	1000ccs	5 ounces

For use add 1 part of A to 4 parts of B. This acts quickly and gives off no noxious fumes. As soon as the image is bleached immerse in

Alum.	50 g	¼ ounce
Sodium sulphite	1.25g	6 grains
Sulphuric acid	2 ccs	5 minims
Water.	1000ccs	5 ounces

And when the stain has disappeared wash the print in running water for ten minutes and redevelop in

Amidol.	6 g	6 grains
Sodium carbonate	3 g	3 grains
Sodium sulphite	17.5g	17.5 grains
Water.	1000ccs	2 ounces

Then thoroughly wash and dry.

He also suggests the following for removing dichroic fog from negatives:

Potassium bichromate	14g	35 grains
Salt	100g	½ ounce
Sulphuric acid c.p.	85ccs	200 minims
Water.	1000ccs	5 ounces

This converts the fog into silver chloride, which will rapidly dissolve in a hypo bath, and the image is not attacked.—*B. J.*, 1914, *p.* 492.

Toning With Cobalt Sulphide

Prof. Namias suggests the use of cobalt salts for obtaining warm brown tones on prints. The print should be immersed in a 5% solution of potassium ferricyanide till every trace of black disappears from the image, then washed carefully and immersed in a 2% solution of cobalt chloride acidified with hydrochloric acid till the image is distinctly green. The print must now be washed for about half an hour to remove all trace of the cobalt salts from the paper and then in daylight developed with any dilute metol-hydro developer. This gives warm blacks, but fine brown tones are obtainable by treating with a 1% solution of sodium sulphide. If after treatment with the cobalt bath the print is immersed in a 5% solution of hypo the silver chloride is dissolved and the cobalt ferrocyanide only left and this can be reduced by an alkaline sulphide to the corresponding cobalt salt, which is a deep brown, but there is some loss of vigor.—*Apollo*, 1914, *p.* 137.

Uranium Intensification

This is an extremely useful process for very thin ghostly negatives, but care must be exercised not carry it too far or the time of printing will be too prolonged. The following is a good formula:

A.

Uranium nitrate	10g	70 grains
Distilled water	1000ccs	16 ounces

B.

Potassium ferricyanide ..	10g	70 grains
Distilled water	1000ccs	16 ounces

For use add 10 parts of glacial acetic acid to 50 parts of A and then add 50 parts of B, from ten to fifteen minutes' immersion is sufficient. To remove any stain in the gelatine immerse in

Sodium sulphite	100g	700 grains
Glacial acetic acid	50ccs	350 minims
Water.	1000ccs	16 ounces

Then rinse in water, immerse in alcohol for ten minutes and dry.—*Apollo*, 1914, *p.* 137.

A Cleaning Paste

An excellent cleaning paste can be made by mixing magnesium oxide into a paste with benzine. This can be used for all metals and also for polishing plate glass for enameling prints.—*Phot. Chron.*, 1914, *p.* 76.

This is a very old idea and the only objection is the inflammable nature of the benzine

vapor. An equally effective mixture is tripoli, ammonia, water and alcohol.

Chloranol for Autochromes

V. Cremier strongly recommends the use of this developing agent for autochrome work, it keeps well and gives slightly more contrast than metoquinone. The formula is:

Warm water	1000ccs	16 ounces
Chloranol	15g	105 grains
Sodium sulphite	100g	700 grains
Potassium bromide	6g	42 grains
when cold add		
Ammonia 22 Be.	32ccs	224 minims

One part of the above should be diluted with four parts of water.—*Photo-Revue*, 1914, *p.* 196.

Chloranol is a compound of chlorhydroquinone and metol.

Reversed Silhouettes

An interesting process is described by Dr. Lindner of Berlin for making silhouettes in which the image is white and the background black. He directs a parallel beam from an arc lamp on the object, which may be in a vessel if necessary, and development (gaslight) paper is used, being placed as close to the object as possible. A long card with a slit in it is then moved across the object, thus exposing the paper. Sunlight can, of course, be used and in both cases the room must be darkened. This process is easy and especially valuable for biological work, as when the light is sufficiently intense and the object small and transparent, details of the structure of the body can be obtained.—*Phot. Ind.*, 1914, *p.* 751.

A New Use for the Infra-Red Rays

Ulivi, an Italian engineer, has discovered how to explode powder magazines, bombs, etc., at a distance. The invention is based on the fact that the infra-red rays can produce electric sparks from metal bodies at a distance. The apparatus is comparatively light and simple so that it can be carried on mule packs. He has succeeded in exploding bombs floating in the Arno at a distance of 17 kilometers, although they were thoroughly insulated and the energy had to pass through or over the hill of Fiesoli and the stone embankment of the river. He is now building an apparatus to work at 100 kilometers.—*Frank. Umschau*, 1914, *p.* 460.

Cathode Rays at Atmospheric Pressure

O. Geschoezer claims to have produced X or cathode rays at atmospheric pressure. His arrangement is a small, 5 cm, induction coil with the positive pole grounded to earth. To the negative pole is fastened a brass rod of 1.5 cm. diameter and 60 cm. length, the free end of the rod is bent down and dips into the flame of a small gas burner, which is insulated by an ebonite plate and an upturned porcelain dish. The primary is excited by two 60 ampere-hour accumulators, and when excited the flame appears whiter and is drawn away from the brass rod, the two in conjunction are the source of the cathode rays, which will charge or discharge an electroscope at a distance of 6 cm., will also make a vacuum tube luminesce and act on a plate.—*Bull. Soc. Franc.*, 1914, *p.* 126.

Restoring Faded Prints

Prof. Namias recommends the following procedure for restoring faded prints of all kinds. Immerse the print in

Copper sulphate	10g	70 grains
Salt	50g	350 grains
Water	1000ccs	16 ounces

for five minutes and wash well. The image now consists of silver chloride and can be redeveloped with any developer, but much better results are obtainable by the use of Desalme's sodium stannite solution, which is made by adding sufficient 10% solution of caustic soda to a 1% solution of tin protochloride, till the precipitate first formed is redissolved. This redeveloper gives greater intensity than any ordinary developer. A few minutes' immersion in this and subsequent washing is all that is required.—*Phot. Korr.*, 1914, *p.* 254.

Autochrome Practice

E. A. Bierman recently gave the following as the correct method for calculating the exposure for autochrome plates, for each smaller stop increase the exposure by 25%, that is to say if the exposure with F. 8 is one second, that for F. 11 it would be 2½ seconds and not 2. He states that he has found this to work admirably in practice. For development he recommended quinomet, but varies the strength according to the character of the lighting of the subject. He uses it in varying strength from 1 to 4, to 1 to 12 and notes the time of appearance of the image, squares it and multiplies by four.—*A. P.*, 1914, *p.* 56.

Artificial Light Screens

Von Huebl gives the following table of the composition of various light sources:

Source of Light.	Red	Green	Blue	Red	Green	White
Daylight	33 1-3	33 1-3	33 1-3	..	..	100
Elec. carbon lamp	65	30	5	60	25	15
Nernst lamp 220 v.	61	32	7	54	25	21
Incandescent Gas	54	38	8	46	30	24
Arc	50	32	18	32	14	54

In the last three columns the white is obviously formed by admixture of equal quantities of red, green and blue.

The screens or filters which will make daylight similar in color to the artificial lights he

calls "the equivalent screens" and those which will make the artificial light like daylight are called "the complementary screens." The dyes used are the pure photographic dyes of Meister, Lucius & Bruning, of Hoechst.

Source of Light	Equivalent Screen		Complementary Screen	
	Filter Yellow K	Solid Red D	Toluidine Blue	Solid Red D
Electric (carbon). Gas (batswing)...	0.90	0.20	1.25	0.32
Nernst..... Acetylene.....	0.85	0.20	1.10	0.30
Electric (Tungsten) ..	0.80	0.21	1.00	0.25
Incandescent Gas	0.70	0.11	0.80	0.30
Arc.	0.35	0.13	0.60	0.17

The weights are the quantity of dye per square meter in an 8% solution of gelatine.

A neutral grey screen can be made with Toluidine blue 1.00, filter yellow K 0.55 and solid Red D 0.46.—*Il. Pro. Fot.*, 1913, *p.* 231.

The Coloring Matter of Flowers

Michaud and Tristan have photographed ninety different species of Costa Rican flowers with the so-called Foucault screen, which is a quartz lens so heavily silvered that it will not transmit any visible light but lets through the ultra-violet between wave-lengths 3160 and 3260. And they have found that all flowers that are not yellow possess a very strong absorption for the ultra-violet. Red, white and blue flowers appear when photographed as above quite black and their absorption is greater on that side turned to the sun than for the underneath side. Yellow flowers are divided into two classes, the one behaving as above, the other possessing very strong reflective power for the ultra-violet, and thus appearing white.—*Arch. Sc. Phys. Nat.*, 1914, *p.* 47.

This confirms Prof. R. W. Wood's researches with the same lens.

NOTES AND NEWS

Some Labor Savers

Unless you visit the stockhouse frequently or go through your catalogs every once in a while, you are pretty apt to overlook a good many of the minor sundries that you could use to excellent advantage.

For instance, there is the Eastman Double Coated Mounting Tape. This tape consists of a strip of thin, very tough white paper, half an inch wide and coated on both sides with a powerful adhesive and a hundred-foot roll only costs fifteen cents.

You can find all sorts of uses for this tape, you can use it for mounting prints by the edges or corners, for temporary bellows repairs, for binding glasses together, and for many other similar purposes.

The Duplex Print Square will pay for itself the first week of a busy season. With its aid the correct and accurate spacing and trimming of prints becomes an exceedingly simple proposition. The square is really two squares, each made of aluminum, and so fitted with screw clamps as to be instantly adjusted to any rectangle from three to fourteen inches. The price is three dollars and fifty cents.

The Eastman Mask Chart is another one of those simple and effective time-savers—so simple that you wonder why you or someone else didn't thing of it long ago. The chart is a sheet of non-actinic paper accurately ruled in quarter-inch spaces both ways from the center, and marked in inches.

All you have to do to cut the mask is to cut with a sharp knife to where the lines producing the desired size of the mask intersect.

The mask charts are made in three sizes, 5 x 7, 8 x 10, and 11 x 14, and sell by the dozen for ten, fifteen and thirty cents, respectively.

If you do anything in commercial work, you find it at times necessary to photograph something flat on the floor or directly overhead.

Fastening the camera to the top of a stepladder or some other makeshift device has sometimes proved disastrous.

The Crown Tilting Tripod Top should find a place in every photographic work-room. With its aid a camera may be tilted at any angle upward or downward, and also reversed for vertical pictures, without changing the camera back, or removing it from the tripod. These tilting tops are made in two sizes, and sell for two dollars and two dollars and fifty cents.

Submarine Motion Photography

Mr. William F. Doty, our Consul at Nassau, has just reported the successful operation of a submarine motion-picture camera recently invented by an American photographer. No machine previously invented has been efficient at a submersion of more than two or three feet, but with this apparatus submarine pictures have been taken in Nassau harbor showing with great clearness the

marine gardens, fish of many varieties, old wrecks with divers working among them, anchors at a depth of a hundred feet and the movements of sharks and other submarine dangers. A picture was made by the inventor of the mechanism of a fight between his son, armed with a knife and without protective clothing, and a shark at a depth of about twelve feet. This is noted as an example of the detailed knowledge which can be got of the methods of attack by sharks.

The apparatus consists of "a flexible metallic tube twenty inches in diameter composed of a series of units or sections of overlapping hinges set in a vertical position, though the tube may be suspended at any desired angle. The pressure of the water bends the joints inward and causes the hinges to fall downward; thus the weight is increased, the different sections are easily lowered and the tube becomes automatically poised, even when the float or barge above is being rocked by the waves. A strong rubber covering renders the tube impervious to water."

The pictures are taken from a spherical terminal chamber at the lower end of the tube, ordinary atmospheric conditions being maintained by keeping the upper end open. A funnel six feet long (to assure the proper focus for work) in the shape of a truncated cone is attached to the terminal chamber, with a glass port one and one-half inches thick at the larger (outer) end. During ordinary daylight artificial light has not been found necessary to get good pictures, and at night a small battery of Cooper-Hewitt lamps and reflectors is found effective. The operator can sit in the terminal chamber and work for hours at a time.

Consul Doty reports that an American physicist of high reputation has expressed the opinion that the tube may be lengthened perhaps to 1,000 feet, which would make it of importance in many lines of scientific work in oceanography. It may prove very useful in salvage operations and in the inspection and repairs of hulls at sea. In the pearl and sponge fishery the tube is expected to work a revolution, since many of the best specimens lie too deep for exploration in the diving helmet.

These films have been shipped to New York, where they are to be placed on exhibition at once. No more interesting development of the cinematograph has yet been offered.

Photographers Who Combined Advertising Appropriations to Boost Their Line of Business and Profited Individually.

It is seldom that all the men in one city who are engaged in a particular business will have the faith in each other to attempt cooperation, but the photographers of a Kansas city, says a writer in *System*, showed themselves to be really up to date in a recent advertising campaign. Clubbing together, they ran a series of advertisements in the newspapers, mentioning no names, and merely giving arguments tending to bring portraiture before the public. At a stated time they held a meeting, and each man brought his record of the total business done during that period. The expense was divided among them in proportion to the volume of business done. There are probably few organizations of business men whose members would be willing to open their books to each other, and yet such a campaign, properly planned, could undoubtedly be worked to good advantage by merchants in many lines. It is interesting in this connection to note that the photographers found the plan paid.

Commercial Photography

The following is of interest. When photographing machinery or other similar things the most suitable coating is slate-gray paint, with an absolutely flat, *i. e.*, non-shiny, surface. Those parts in the poorest light should be printed somewhat lighter or even white. For blocking out negatives he rubs up a stick of Indian ink with a little water, say, half a teaspoonful on a piece of smooth slate, and adds a piece of orange chrome about the size of a pea. This is unaffected by damp, flows readily from a pen, and if of suitable consistence is quite opaque. He also mentioned an old but little known dodge for cloud prints on the cover glass of lantern slides. In brief, this consists in making the landscape plate, developed and dried, of course, serve as a mask for the cover glass on which the clouds are to be printed.

Photo-Sculpture

Many a sculptor has used photographs to help him in his work, but an improved method of employing this aid, devised by Prof. J. H. Smith, of Pittsburgh University, has just been described by Carolyn Wilson Summers in the *Technical World Magazine*. The sculptor of the future, says Miss Summers, may be thousands of miles away from his sitter when he starts to work on the production of a bust from life. The camera will save the sitter from the tiresome task of maintaining a position that the artist may work from, and the sculptor may work at any time, whether the subject has made his appointment or not. We read:

"The subject is quickly photographed from different angles by the 'sterometricon,' as the inventor, Prof. J. Hammond Smith, of the University of Pittsburgh, has named his apparatus. The exact form of any object can be recorded for all time without touching the object itself, and these record pictures may be sent to the artist, making possible a better result than ever could be done with the present method.

"The sitter is seated in an armchair on a

den. They began experimenting in the cellar of a dwelling-house. Many an obstacle did they encounter to reach the goal of perfection, and the rays of the rising sun frequently indicated that they had spent the night experimenting. The building at 827 Chouteau avenue was next occupied as a factory, and from this place, in 1880, the firm of Cramer & Norden appeared as one of three parties who introduced the first samples of dry plates at the Photographers' Convention held at Chicago. The judges there declared the Cramer & Norden plates to be the best.

In 1883 Mr. Norden retired. The factory had, in the meantime, been moved to larger quarters. The products of the G. Cramer Dry Plate Works ever since have been known throughout the universe, as the plates are not only used in this country, but also in many of the foreign countries.

Mr. Cramer was married to Miss Emma Rodel Milentz of St. Louis.

His three sons F. Ernest, Emil Rodel and C. Adolph Cramer, are connected with the firm their father founded, in the management of the different departments and have been in practical control of the business for several years.

While an active business man, Gustav Cramer found time for participation in the work of various charitable and benevolent organizations. He was one of the largest contributors to charity in St. Louis. He was connected with many charitable organizations, in which he took an active interest. He was a member of the Supervisory Board of Charitable Penal Institutions of the City of St. Louis, a member of the Board of Directors of the St. Louis Provident Association and one of the directors of the German Protestant Orphans' Home.

He was one of the founders of the St. Louis Altenheim, a home for the aged, which is conducted by the German-Americans of St. Louis, and supported by a gentlemen and ladies' society, of which Mr. and Mrs. Cramer were presidents. He was also a member of Erwin Lodge, A. F. and A. M., with which he had been identified for more than forty years.

A man whose whole heart was in his work, one who was ever striving after the highest achievement, he leaves the world of photography indebted to him in no small measure. His loss will be mourned and his memory honored by the many who were proud to call him friend.

Photographing Yourself at a Distance

A curious method of photographing oneself when at quite a distance from the camera is proposed by M. Morisot. Take a wood spring clothespin and shape out one end so that it grasps the bulb of the shutter and the spring tends to press on the bulb. Then the other ends are brought together so as to release the bulb, and are tied with string or thread. On this is put a piece of fuse of some length. Lighting the fuse the person goes to the distant point before the camera, and when the string is burned the clothespin presses the bulb and makes the exposure.

Announcement

"How To Make a Studio Pay," by the well-known expert, Frank Farrington, will be published early in September. Roland W. Phillips, in his carefully prepared introduction, says: "Mr. Farrington has placed in our hands a valuable book, every chapter of which is well worth careful study. He has given us an analyzation of the business side of our daily work; he has attempted to show us not only 'How to Make a Studio Pay,' but how to make Our studio pay better. I say this because I believe there is not a photographic establishment in existence that has yet reaped its possibilities of profit-taking."

No more important hand-book for the professional has been issued in recent years. The practical subjects covered include: "Buying and Arranging the Stock," "The Treatment of Customers," "System in the Studio," "How to Know the Profits," "Credit and Collections," "Developing Side Lines," "Business-Getting Schemes," etc., etc.

This will be an invaluable hand-book for every studio. Price only one dollar ($1.00) postpaid. All orders will receive prompt attention. Address this office for circular and further particulars.

THE CONVENTION OF THE PHOTOGRAPHERS' ASSOCIATION OF CANADA, RECENTLY HELD ON JULY 21-22-23, IN TORONTO, WAS THE MOST SUCCESSFUL IN THE HISTORY OF THAT ASSOCIATION.

To begin with the exhibition was the best yet gotten together. Beside the Abel collection, the pictures were nearly all from the Province of Ontario. The exhibition alone showed that the society had outgrown its quarters, as all of the available space on the walls was filled. These pictures were of varying quality, as is always the case in exhibitions of healthy organizations of this character, but every picture bore the earmarks of earnest endeavor. The pictures by Kennedy, Rosevear, Leatherdale, Roy and some others of that province were excellent in every way, showing technical skill and pictorial interpretation.

The program was cleverly arranged and closely followed.

The demonstrations conducted by the dif-

ferent plate and paper representatives were most instructive and well attended.

The demonstration in operating by Howard D. Beach of Buffalo, as was expected, proved an attractive and instructive feature. The posing and the short talks between the sittings were full of useful suggestions.

Eight different systems of electric lighting were shown or operated under, many present taking a hand in arranging and adjusting the apparatus.

Electric lighting in photography is of great moment to all studio owners—as was evinced at these meetings.

The business and advertising talks were given by J. C. Abel, with his usual zest, and, with undiminished tact he made them suit the occasion admirably.

"How to Make Commercial Work in the Small Town Pay," a talk by Fred Booth, who handled his subject in a way to make converts to the convention idea, was well worth attending.

The entertainment and social features were prominent.

The first evening, Tuesday, was devoted to a splendid reception at the studio of the President. Mr. Kennedy was assisted by his officers and by Mrs. Kennedy and other ladies. The needs of the inner man were looked after by a caterer, after which the "North Light" was explored. It is a wonderful new electrical contrivance giving off thousands of candle-power of brilliant white light.

Mr. Lyonde's studio, in the same block on King street, was also visited and his electric-lighting method of arc lamps outside the skylight received much commendation.

Wednesday evening the annual dinner was indulged in at a nearby hotel, and after a toast, drunk to the king, the ladies were escorted in automobiles to a theater, while the men became fascinated through investigating further into the mysteries of electric lighting.

Thursday afternoon, on account of rain, was given over to a theater party for the men and women, but the evening was sufficiently clear for the dinner on the piazza of the dining hall at the Island. At the conclusion of the dinner Mr. Beach was called on for his lecture on "Photography and Poetry," which ends with a few short poems, humorous and otherwise.

After a few speeches, interspersed with band music from a neighboring stand, the company gave a "skyrocket" to the dealers, who supplied the entertainment for the afternoon and evening.

It was quite late before the hobbyhorses, scenic railways, old mill and other stunts lost their charm upon the crowd of photographers and dealers and their ladies.

Mr. Kennedy and his officers are to be congratulated upon the success of this, the most successful and largest of Canadian conventions.

The treasurer registered the one hundred and first man on the last day.

The last session of business meetings, Thursday morning, was made interesting through a discussion along the lines of changing back to co-operation with the dealers at the conventions. This was left in the hands of the executive committee.

Mr. John Kennedy was elected president, Mr. F. L. Roy was elected vice-president, Mr. Fred Booth was elected secretary, Mr. L. Clarke was re-elected treasurer.

Replies to Queries

T. Beard: Your inquiry as to what encaustic cerate is, and what it can be used for, is replied to here.

Encaustic cerate was invented many years ago by Adam Salomon, a Parisian photographer. It was used to protect the surface of albumin plates from the sulphur of the atmosphere. It answered the purpose well by rubbing the surface of the print with a small piece upon a piece of chamois leather. It was made as follows:

Pure white wax	1¼	ounces
Gum elemi	10	grains
Benzole	½	ounce
Oil of Lavender	6	drams
Oil of Spike	1	dram

Melt the wax and gum elemi first, then add the benzole and the other ingredients. When cold the cerate is fit for use.

G. Robinson: Is the common white alum as suitable for the negative fixing bath as chrome alum, because I experience some difficulty in getting the latter? Chrome alum is the chemical best suited. You can get this alum from any dealer in photographic chemicals.

H. Oates: Your inquiry as to which is the best material to make paste for photographs, with starch or flour? Starch is the one material suited to your requirements. It should be well cooked, and a few drops of oil of cloves added—about thirty drops to a quart of paste.

Errata

As we were unable to read the proofs of the article entitled, "A New Theory of the Development of the Latest Image," which appeared in the department of Translations and Abstracts last month, an obvious error passed uncorrected. The article should have read "A New Theory of the Development of the Latent Image."—[*Editor* W. P. M.]

INTERESTING RETURNING VACATIONERS IN ANSCO COMPANY'S $5,000 LOVELIEST WOMEN CONTEST.

SEPTEMBER sees mountain trail, burning beach and ocean liner yielding up their respective charges and returning them to the old routine, refreshed in body and mind and better equipped to resume their varied pursuits.

A vacation *does* work wonders, doesn't it?

We go away, hollow-cheeked and nervous, feeling that something is going to break any minute. We're pessimistic. Overwork has injected its deadly toxins and we vow we couldn't have stood it another week. And then——

Once outside the corral of commercial strife, pessimism slinks away, like the traitor that he is. We get the first night's rest in a strange world, far removed from the maddening whir of the machinery of business.

Up bright and early next morning, a cold dip, a brisk walk, breakfast. Now for the woodland trail or the beckoning strand. We sniff the air and then, the long, deep breaths, chest heaving like the bellows of the village smithy.

Ah-h-h-h! We're taking on new life. We're actually getting younger. A week, two weeks; a month of life in the open, commencing with Nature and frowning upon anything that reminds us of the monotonous grind back in the big city. Then a look in the mirror. Surely this cannot be the same person. What a really wonderful change. But, that's what a vacation does for us.

And here's the point! In this vast crowd of returning vacationers there is much better contest material than ever before.

Lovely women have taken on a fresh bloom of health. Cheeks are filled out and necks are nicely rounded. There's a sparkle in their eyes that indicates new life and interest and *receptive mood.*

They're ready now to listen to the story of the big prize contest. Their friends are anxious to have them known as among America's loveliest women. All you need to do is to touch the spring that will set them in motion and lead them to *your* studio.

Now in the full glow of vacation health and spirits they realize there is a greater opportunity of being chosen. And they are right.

Your task is so much easier *right now.* You know how to get them interested. You've already interested a large number of them but you must not stop there.

There are only a few months left in which you can enter new contestants. The fame of having one's work exhibited at the great Panama-Pacific Exposition and the possibility of your winning a $50 to $500 cash prize should be sufficient incentive to make you do your level best while there is yet time.

You have, or can get free, newspaper electros which tell about the contest, to use in your local newspaper. These are direct connecting-links between *your studio* and the powerful advertising that Ansco Company has been doing each month in the magazines of big circulation and influence.

You know, among your customers, several Lovely Women who, you have reason to believe, possess the portrait qualities necessary in a contest of this kind.

Urge them to have their pictures entered. They get the coveted honor and you the cash prize and the distinction of having your exhibition brought before the gaze of the world in 1915.

Aside from this, you get a lot of valuable advertising without cost, following the announcement of the winners. There is certainly every reason why you should enter heartily into this big contest and help make it hum.

Buckle-up this month and have all the Lovely Women for miles around hitting the trail to your studio. It will pay in *increased business,* besides all the other advantages pointed out in the foregoing paragraphs.

NORTHWESTERN PHOTOGRAPHERS' ASSOCIATION, SEVENTEENTH ANNUAL CONVENTION, SEPT. 29, 30 AND OCT. 1, 1914, ST. PAUL, MINN. PRIZES FOR 1914 CONVENTION. GRAND PRIZE.

THE officers and members of the Northwestern Photographers' Association send greeting to all photographers throughout the United States and Canada. We offer a beautiful loving cup for the best exhibit of photographs at our convention at St. Paul, Minn., Sept. 29th, 30th, and Oct. 1, 1914. For non-Association members only.

Photographs to be on any paper, framed or not, but without glass. Two to four in number, nine inches or larger one way, contact prints.

Photographs must not arrive later than Sept. 25th. Address to B. C. Golling, Ryan Building, St. Paul, Minn.

Exhibitor to pay charges both ways, but the Association reserves the right to retain the exhibit that is the winner for its permanent exhibit.

R. W. HYNEMAN,
Secretary, Eden Valley, Minn.

PHOTOGRAPHY IN COLOURS, BY G. LINDSAY JOHNSON. PUBLISHED BY G. ROUTLEDGE & SONS, LONDON, AND E. P. DUTTON & CO., New YORK.

THE author in his preface to this, the second edition, states that "the entire work has been carefully revised and as far as possible brought up to date. In fact, it may be considered as a new book." Bearing this fact in mind it is difficult to criticise it. It is like

the curate's egg—good in spots—it has many of the faults of the old edition, with some good features and some that are very irritating. There is a looseness of writing that ought not to be; for instance, we are given on one page Mees' table for the screen factors for color plates and on another a totally different and irreconcilable statement of the same factors. Typographical and date errors are common, for instance, we find "Heron" on the next page to "Hering," and the casual reader will naturally assume that the former is an authority substantiating the latter, whereas they are the same. Joly is stated to have invented his plate in 1897, whereas as a matter of fact he patented it in 1894. To McDonough he ascribes the principle of the first black condition, yet Ducos du Hauron laid it down thirty years before.

When dealing with the nature of light and color, the author is decidedly happy, but again we meet with statements that are, to say the least, open to objection. I should like to know how a fluor spar prism can render visible wave-lengths of light of 200 millimicroms, and Anyone knowing the subject can grasp what the author means, but he distinctly states that the work is written for the unscientific reader, therefore, such wide statements are distinctly misleading. Again in his explanation of the production of color he jeers at the ordinary text-book and then goes on to make the egregious mistake of being unable to differentiate between a homogeneous and heterogeneous substance, and deducts from this error actual proof of the correctness of the ordinary text-book statement, which obviously lands the unscientific reader in a hopeless muddle. Again by a logarithmic equation he proves that one-third divided by one-fifth equals one.

In dealing with the history of color photography he is equally lax, but in treating of the eye he is at his best and one can but wish that he had devoted more space to this which is his own field, for although one cannot accept all that he says, he sheds a new light on many obscure points of vision, and for this chapter alone the book is worth careful study.

The processes are dealt with in a perfunctory and superficial manner. A screen plate that has been dead for years is treated at length, the three-color process is limited to the description of a commercial camera and no data are given as to the preparation of the screens for this process and Uto-Color paper is dealt with in 24 pages, most of the matter being merely a rechauffé of Limmer's pamphlet on the subject, and this is an entirely disproportionate space for this process in a book of 230 pages. On the whole the book is decidedly disappointing. E. J. W.

THE new catalog of Photographic Lenses and Shutters, published by the Bausch & Lomb Optical Co., has just come to our desk and is one of the most attractive publications ever issued by that company. Besides detailed descriptions and price lists of the high-grade Tessar and Protar lenses, shutters and other accessories of Bausch & Lomb manufacture, it contains a wealth of scientific material of importance to photo enthusiasts and specific suggestions on the selection of a lens. The seventy-one excellent reproductions of Tessar and Protar work are presented to splendid advantage on an ivory-tinted paper. A copy of this interesting publication may be obtained by writing to the Bausch & Lomb Optical Co., 633 St. Paul St., Rochester, N. Y.

PHOTOGRAPHERS' ASSOCIATION OF OKLAHOMA

THIS Association will hold its convention in Oklahoma City, Sept. 15-16-17. There will be a number of prizes offered in competition and the program will be of unusual interest.

T. W. SAUNDERS, Secy.
Davis, Okla.

CURRENT TOPICS IN LEADING PERIODICALS

Carbon Printing in Hot Weather, July 3rd, *British Journal.*

Choice of Lens for Pictorial Photography, July, *American Photography.*

Correct Color Values, August, *Photo Era.*

Finishing Photographs by the Air-Brush, July 24th, *British Journal.*

Focusing Sharply, July 31st, *British Journal.*

Lightening Dark Prints, July 10th, *British Journal.*

New Method of Rendering Photographic Plates Immune from Reversal by Over-Exposure, June, *Photographic Journal.*

New York Camera Club and Its Work, July, *Munsey.*

Nature of Light, The, June, *Camera Craft.*

On Backed Plates, July 10th, *British Journal.*

Photographing Machinery, July 3rd, *British Journal.*

Plate-Markers for Unmounted Prints, July 10th, *British Journal.*

Problem of Grouping, The, August 12th, *Bulletin.*

Photography on Tour, July 24th, *British Journal.*

Rapid Focusing With a Hand Camera, July, *Photo. Times.*

Reflex Camera Work, June 26th, *British Journal.*

Rising and Swing Fronts and Swingbacks, August 17th, *British Journal.*

Simple Method of Testing Lenses, A, June 26th, *British Journal.*

Telephotography With Autochrome Plates, July, *Photo Era.*

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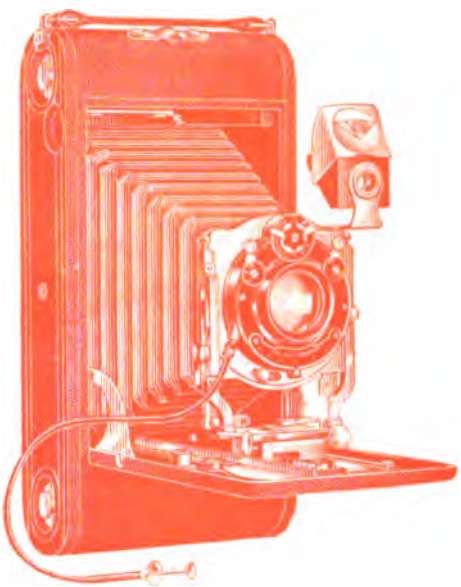

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WILSON'S PHOTOGRAPHIC MAGAZINE

FOUNDED IN 1864 BY EDWARD L. WILSON

VOL. LI. OCTOBER, 1914 No. 10

RECENT WORK BY J C. STRAUSS

BY SADAKICHI HARTMANN

(SIDNEY ALLEN)

DURING the last season a representative collection of J. C. Strauss' portraiture traveled throughout the country and was put on exhibition in not less than twenty of the larger towns. Traveling "one-man shows," hitherto, were indulged in only by artists, tired of the overcrowded monotony of general exhibitions. The fact that such an exhibition was possible, that it was welcomed in so many places and favorably commented upon is in itself significant of the prominence which the St. Louis photographer enjoys to-day.

It is now ten years ago since I first wrote an estimate of Strauss' work—how time flies!—and more than fourteen since I became acquainted with the Bohemian atmosphere of the "Tower room" and the "Growlery" of his French chateau on Franklin avenue. From the very start I considered him one of the "really strong men" in the profession. Everything in his shop bore the stamp of a dominating personality, and the directness of his style and methods appealed to me.

A man who wishes to come to the front by his own force of character must be consistent in the pursuit of faculties which are natural to him—he can not be convincing unless he knows his mind. If he dallies with strange pictorial creeds, if he tries to warp his inclinations into channels where they do not instinctively run, if he makes vague experiments with forms of art in which he does not sincerely believe, he only wastes his energies and delays his progress. Strauss, already at that time, had passed the stage when the struggle with the mechanism of art hampers freedom of expression and checks spontaneity of thought.

And now with samples of his work before me that may, not unfairly, be called to represent his maturity, work in which his earlier efforts bear full fruit, I appreciate more than ever how logically he has proceeded, step by step, and how loyally, through many busy years, he has kept in view the deliberate intention to realize certain well-balanced theories of practice. Theories that coincide with mine, theories that I wanted to see carried out, as they exploit photographic portraiture in the sanest, the most vital and the most expressive manner.

I have never budged one inch from this viewpoint, nor has he. In portraiture the face is the thing, the precise representation of facts, the naturalness of attitude,

THE STRAUSS STUDIO
ST. LOUIS, MO.

the subtlety of facial expression. Strauss has taken the risk of being ignored by people who are more concerned with tricky dexterity or exaggerated tonal effects than with the advancement of the true principle of portraiture.

Strauss is as fond of composition as anybody else, but he wants it to be made up of human beings, not of ghosts and lay figures, which conform only to some pictorial scheme. Of course, he concerns himself as much as any other photographer to work out a coherent scheme of design, but he does not choose the pattern first and fits the sitter *nolens volens* into it. He studies the sitter first and then waits until space and values, and light and shade build up a perfectly balanced pattern. That is the difference.

To control the human face in its most favorable expressions, that is the chief motive force of his art. He is pre-eminently an *operator* who has discovered his own methods of bringing a note of movement and action, of fluent and subtle expression into the outward appearance of his sitters. To the winds with all constructional preconception! He possesses that keen power of observation, the judgment of pictorial incidents at the moment, and the selective sense that can choose no more or less than what is necessary. This is the one gift which the portraitist must own. Greatness is impossible without it. Many, nowadays,

BY THE STRAUSS STUDIO
ST. LOUIS, MO.

are chosen to press the bulb, but despairingly few do it at the right moment. Strauss is the most efficient bulb-squeezer I have the honor to know, and he has disciplined this executive facility with so many refinements of practice and taste that it never deteriorates into mere superficiality.

Strauss is a master, too, of practically all the photographic mediums, of different plates and papers, of autochromes, gum prints and enlargements, as well as of all the various lighting devices—

THE RECEPTION ROOM
STRAUSS STUDIO, ST. LOUIS, MO.

ordinary studio daylight, out-of-door exposure, home portraiture and artificial lighting. With such breadth of resource and with such a command over varieties of mechanism he is never at loss as to the way in which he should treat his subjects, to each one he can give unhesitatingly its appropriate technical quality.

This man is always on the alert, wide-awake to every change in taste, a student of passing fads and fancies, welcoming every innovation, testing it, continuously experimenting, striving to perfect his craftsmanship, to enlarge his vision, to achieve more eloquent and convincing interpretations of character. He follows closely the fashions that occur in his profession as well as anywhere else, and sometimes sets them himself.

And thus it came to pass that J. C. Strauss, although living in an inland town where the art atmosphere is rather thin and treacherous, became one of the master photographers in the world. No wonder, that at times, to use an admirable metaphor, he is firing off pistol shots to attract the attention of the public. He will not stop "sendin' his picture 'round" and it would be suicide if he did. An art personality in the Middle West must assert itself to the utmost to be heard at all. Again in this instance Strauss showed himself master of the situation. To have accomplished in St. Louis what he has accomplished is in itself a most wonderful performance which no other practitioner can claim to share, and proves better than any lengthy analysis that in the Strauss establishment art, technique and business go hand in hand, all equally strong and efficient, as they have to be in a *successful* photographer's career.

The examples here illustrated of his recent achievements need no particular comment. They clearly display a rare adaptability to the demands of the day, a largeness of sentiment and sincerity of purpose which can not be less admired than the brilliant robustness of style by

FIRE PLACE IN "THE GROWLERY"
STRAUSS STUDIO

which it is distinguished. They could be made only by a man who at all times went his own way, who could not afford to hedge himself with hard-and-fast rules and who never followed any rigid artistic prescription.

What captivates and moves me most in his prints is the frank vitality and truthfulness of rendering. With all their brilliant freedom of execution, their shimmer of texture, their gleaming lights and strong shadows, and their arrested motion, their special claim to attention depends not so much upon their interest as pictures as upon their expressive exploitation of the human face.

Analyze them as to their composition, line, space, values, light and shade—verdicts may differ at times—but all will agree that these productions are controlled by a master mind, and by the most thorough understanding of the rules by which all great efforts in portraiture are directed.

PIRIE MAC DONALD OF NEW YORK
AFTER PAINTING "THE MERCHANT" BY HOLBEIN THE YOUNGER

GUSTAV CRAMER OF ST. LOUIS
AFTER PAINTING "ERASMUS" BY HOLBEIN

MOTHER AND DAUGHTER
AFTER PAINTING BY MME. LE BRUN

R. DÜHRKOOP OF GERMANY
AFTER PAINTING DOGE MARLENIONA TREVISUNO

OLD MASTER IMITATIONS PERSONIFYING LEADING PHOTOGRAPHERS
BY STRAUSS STUDIO, ST. LOUIS, MO.

BY THE STRAUSS STUDIO
ST. LOUIS, MO.

TIME FOR A CHANGE

BY RYLAND W. PHILLIPS

WHY the eternal sepia-toned print? One would think that only a few photographers knew how to make anything else, these days. Is it our own fault, or have we educated the public to this color through a dozen or more years, and are now afraid to do anything else? Is there no other tone to equal it in beauty, or are we too lazy to go to work on a good cold gray, make the negatives to suit, and create a radical change in our style of photographs?

Such questions as these are suggested by the fact that most Convention Exhibits resemble huge collections of mustard plasters.

Do not get the idea that I object to sepias, as sepias. On the contrary, I consider a good sepia print, from a properly selected negative, one of the finest expressions in photography. But why use it all the time, and for everything? About thirty-five years ago the black and white platinum paper was introduced

to us, by Mr. Alfred Clements of the firm of Willis & Clements. Up to that time, we had silvered our own paper, and every photographer turned out the same, or nearly the same tone of print, because there was nothing else to do. The platinum paper offered us a change in color, and also in tone values. We saw the advantage in giving the people something new, and we went to it enthusiastically. The public caught our enthusiasm, and very soon we began to produce mercury tones, which eventually resulted in the manufacture of sepia platinum paper. Each time we changed the color of our medium, we were so enthusiastic over the results, that our public kept pace with us. The sepia soon became the so-called best seller, and it has stayed the best seller ever since.

Today we have papers within the purchase price of every photographer, by the use of which, we can produce almost any tone of print from the red chalk to the marine blue, and yet our exhibits are ninety percent. strong on sepia. Are there no virtues in the cooler tones? Undoubtedly there are. At the recent Atlanta Convention, several of the prints purchased by the National Association, were of the gray or warm gray color, and they were beautiful.

Is there any tone to be found that, for certain kinds of negatives, will produce as beautiful a result as the sepia? Most surely there is, and we can produce them if we go about it in the right way. Not every negative will suit a sepia tone, and a gray or cold tone is not the best for all kinds of negatives. Consequently we often see a sepia print which would be much improved by a cool tone. We are too apt to argue that our buying public demand sepias. This is a fallacy of our own making, and it is largely true, because we do not go at it in the right way.

When the merchant wishes to introduce a new line of goods, he prepares for it by making the counter or show room, where the new styles are presented, look different from any other part of his store. This attracts the attention of the prospective buyer, and salesmanship, plus value, does the rest. We are apt to show our customer a conglomerate mass of prints, all in the same place, and under the same conditions, until he or she is confused into taking about the cheapest thing in sight. This is what a lot of we photographers have been doing. It is a fact that we are looking for new styles every year, and mostly we turn to the mount man to furnish us with something new. When we get it, we take a bunch of our old negatives and print them up for the new folders or mounts, usually in sepia. We put these in with our other styles and let the public choose, forgetting that the rule of the up-to-date merchant, is to show the public *what* to choose.

We make one big mistake in this system. When we buy our mounts we have only taken part of the step necessary in answering the question of new styles. Having chosen our new mount, suppose we say it has been chosen for a warm, gray-toned print, our next and most important one, is to realize that our ability to create new combinations in the studio, is only limited by our imagination. We therefore go to work on each sitting, and make one or more trial negatives to suit the new mount. Very soon we have a collection of a dozen or more prints in gray, that look totally different from the sepia prints in our general collection. We must show these to the best advantage, so instead of putting them with the general show, we make a special place for them, use a new portfolio or album, and present them in a tasteful setting, as the merchant would his new goods. Then, the person, whose duty it is to show our wares, is provided with the material to change the demand of our customers, from sepia to gray and increase our sales, at the same time making our public feel that we are alive to serve them with something new, almost before they realize they were tired of the old.

The argument has dealt only with the two tones mentioned, but you can readily see that it applies to any radical change a photographer wishes to make to attract the attention of his public.

Let's get away from the beaten track and no matter what change of color we choose, let's not forget to present it in the right way to our buying public.

DAILY PRACTICE IN COMMERCIAL PHOTOGRAPHY

BY ALFRED J. JARMAN

PART I.

THE practice of commercial photography differs in many respects to portrait photography. In the first place a number and variety of backgrounds is not needed; generally one is used of a grey tint; this is the most useful of all colors for general work.

If a large assortment of men's shirts or ladies' waists are to be photographed this is the best kind of ground to use, as well as for the copying of oil and water-color paintings.

Where many glass and porcelain objects are to be photographed a black velvet background becomes very serviceable. Occasionally a white one may be required. In this case, and in most cases for the matter of that, a large sheet of cardboard is employed. The cost of this is not great and is easily replaced when it becomes too much soiled for use.

In some commercial photographic establishments a top light only is available. In this case a sheet of plain white cardboard becomes very useful as a reflector, when laid upon the copying stand between the camera and the object. A few small side white screens become a necessity, so as to light the painting or fabrics with a suitable and even illumination. These side screens must always be made to swing, so as to illuminate the object at an angle, causing the appendages upon the various shirts or dresses to show up in bold-relief.

The best kind of camera stand for this class of work is that used by photo-engravers, carrying a camera that will take 11 x 14 negatives. The camera must possess a long stretch of bellows so that an object may be copied the exact size, reduced or enlarged. When machinery is photographed, or automobiles, or any wheeled vehicle, it will be found that wherever possible the background should be free from extraneous objects, but as this is not always possible, the background must be blocked out with some dense color, such as opaque, applied upon the face of the negative. This material holds firmly to the negative and answers the purpose well.

The blocking out of the various parts of a negative requires a very steady hand as well as care and judgment. When blocking out a straight line, or a series of straight lines, a straight-edge made of stout celluloid is very useful, in fact, several of these should be made, of different lengths. When applied the strip or straight-edge is placed flat upon the negative, when a Fitch brush charged with the moistened opaque is drawn the whole length and lifted by tilting towards the applied color so as to prevent it spreading over the other parts of the negative. Curves may also be shaped with great accuracy by bending the celluloid to the curve, applying the color in the same way. This simple straight-edge is invaluable for blocking-out because it can be bent to accommodate any curve. The filling-in between the teeth of cog-gear requires care and patience, the operation being invariably conducted upon a retouching desk, the head and shoulders of the operator being covered with a black cloth to prevent the access of light at the back; this enables correct and true lining being done by the transmitted light through the negative.

All the fine blocking-out is done in the first place, such as between the spokes of wheels, cog-gearing, levers, steering-gear, etc., after which the filling-in around these lines is readily accomplished. In commercial photography, unlike portrait work, each negative must

be blocked out and manipulated in a separate printing frame so as to obtain the very best results. The negative may also have to be covered with tissue paper and certain parts covered with plumbago by means of a paper or leather stump, so as to ease some heavy shadow, and in addition some parts of the tissue paper may have to be cut away so as to permit the passage of more light through some dense part and covered again with another layer of tissue paper for the purpose of diffusion over the cut-out parts. This amount of work means that each negative must be fitted separately to get the best results.

Making negatives in a machine shop by the aid of daylight, and the magnesium flashlight combined is not quite such an easy task as taking a portrait in a well equipped studio. Stepping over iron castings, getting the camera fixed in some jammed up corner, amidst smoke and dust, oftentimes taxes the nervous system of the operator to the limit. As soon as the negatives are ready for printing they may be used for direct printing upon P.O.P. or employed with bromide or chloride printing by artificial light, but whenever practicable daylight should be used because of the fine evenly diffused light all over the plate. Exposure by daylight about thirty feet from the window with a blocked-out negative may take three seconds upon bromide paper, while fifty or eighty seconds may be required under like conditions. For chloride paper always make a preliminary test before attempting a large print. This will enable not only the right time of exposure to be judged, it will enable the quality of the print to be seen in the parts that have been doctored.

Due allowance must always be made when estimating for commercial work, taking into account the extra labor and cost of fitting negatives so as to produce the best prints.

As to trays, those made of hard rubber are the best for developing glass negatives in, while for the general work of print-making, fixing or toning, trays made of cypress or willow, the sides and ends must be no less in thickness than three-quarters of an inch, the bottom being made of sound, well-seasoned board five-eighths of an inch thick, well put together with a cemented joint of white and red lead, and lined with any good oilcloth or rubber sheeting.

(*To be continued.*)

THE VALUE OF PRECIOUS METALS FOR TONING

BY GEORGE SMEE

THE value of the precious metals for aiding the permanency of photographic prints produced by the salts of silver has been recognized from the earliest days of the photographic art. Although the credit of the use of gold as a toning agent has been granted to Fizeau, the truth is that the toning of paper positives with the salts of gold was first used by Le-Gray, and published in 1849. Fizeau's process was for the gilding of the daguerreotype, which was quite a different affair. This process was communicated to the Academy of Sciences on May 15th and 24th, 1841, but the application of gold to change the color of a paper print was carried out by Le-Gray, only in a very different way to the process of to-day. Le-Gray printed his pictures exceedingly deep because he first of all fixed the print and then toned it in an acid solution of gold. This caused the print to lighten up considerably, but gave quite a velvety black

tone. It was in 1855 that Thomas Sutton recommended a special preparation of chloride of gold and hyposulphite of soda under the name of Sel d'or, which was almost identical with the compound that Fizeau employed, but this preparation of Sutton's lasted only for a few years because there was an uncertainty as to when the gold became exhausted and sulphide toning set in, which in this particular instance caused the prints to become yellow and eventually the loss of the picture.

The first true gold toning bath was invented by Waterhouse in 1855, in fact, the alteration made by Waterhouse was so great that it is identical in many ways with the gold toning bath of to-day. The true principle of employing an *alkaline* gold solution in place of an acid one constituted the invention. A very weak solution of carbonate of potash was employed with gold chloride, which at once gave very fine tones, which he was able to alter by employing more or less of the alkaline solution. Soon after this all kinds of alkaline solutions were used. In 1856, Hardwich used carbonate of soda, while in 1857 the Abbé-Laborde and Hanniford used acetate of soda; then again in 1858 Maxwell-Lyte introduce phosphate of soda. This last investigator also used ordinary borax in place of the other alkalies. Thus the toning process came about and remains the same to-day. The one important point that was considered was the employment of a solution of gold, because this precious metal was known to be one of the most permanent of the elements, neither sulphur, oxygen or compounds of these elements affected gold, while all other elements except platinum yielded to their action. By introducing gold in combination with the silver image brought about a compound of a metallic nature that added greatly to the permanency of the photographic image. The value of this metal for such a useful purpose has never been overlooked. In fact to-day where it is desired to make a print as permanent as possible, even with the sulpho-cyanide toning bath, gold is the element that is introduced to attain this end, giving as it does the object sought. The introduction of other metals was soon made the object of inquiry, when platinum, palladium and other rare metals were pressed into service. Of all the elements as far as the metals are concerned the metal platinum stands preeminent for resisting the action of sulphur, oxygen or their joint action. It was in 1859 that a process for toning silver prints with platinum was discovered and published by Caranza in the *Photographic News* in June of that year. He pointed out that an acid solution of platinum gave black tones, while an alkaline solution gave brown tones. In 1874 the writer used both the solutions of chloride of platinum and chloride of palladium for the toning of lantern slides, some of which are in his possession today. They have not changed in the least, the platinum-toned slides being a slatey blue while the palladium-toned slides are a perfect jet black, with clear glass for the highlights. The permanency of these metals in combination with the metallic silver of the collodion film is fully attested during a period of forty years.

The introduction of compound toning, brought about by toning the silver print in the first place in an *alkaline* gold bath, then again, after being well washed, toned in an *acid* platinum bath, is a more modern device. The use of collodion as a vehicle for the salts of silver in place of albumen aided greatly the use of platinum salts for toning purposes, because collodion, unlike albumen or gelatine does not combine with the salts of silver to form a definite compound, it acts as an inert vehicle in that the reduced salts of silver can be more readily acted upon than if they formed a combined organic silver salt. The acids that may be employed for the purpose of securing a bite, or hold, upon the silver atoms may be either citric, oxalic or phosphoric and in some instances even nitric acid has been used. In every instance the quantity of acid is very small, the only condition being that the solution must be acid and the prints themselves *must* be made very dark, or, in other words, be deeply

printed, because the properties of gold and platinum to displace silver in a chemical solution. The action of light upon the salts of platinum was known long before they were employed for toning purposes. It was in 1832 that Sir John Herschel first noticed this fact, which was supported by many experiments conducted by Robert Hunt in 1844, who also observed that the prints that were made by the action of light, in which the salts of platinum entered, were of a permanent character, which eventually resulted in the discovery of the platinotype. The metal platinum could be purchased twenty years ago for eleven dollars per ounce; to-day the price is forty-six dollars per ounce, and as the main supply of platinum is derived from the Ural mountains of Russia the price may run eventually to one hundred dollars per ounce. Although this metal is to be found in small quantities in Brazil, about nine-tenths of the world's supply comes from Russia. Where platinum is used in photography the price of prints must also rise in proportion.

PROFITABLE SIDE LINES—THE POSSIBILITIES OF HOLIDAYS

BY A. E. SOWYER

WHILE the holiday season, as represented by Christmas and its attendant festivals, means to the photographer (in common with others who earn their livings by the service of the public), simply a period of nerve-racking, sleep-destroying work, it should present a time of exceptional opportunity as well—opportunity which does not consist solely in an increased number of sittings which come in as a natural result of gift time, without effort on the part of the photographer, but which may be increased in large measure by intelligent study. Moreover, by an adoption of the slogan, "Do your Christmas shopping early," or rather by a utilization of the principles thereof, additional profits may be realized without undue congestion in the studio.

The usual field of the photographer at this time of year, in addition to the increased number of sittings, is quite generally the preparation of gift photos, enlargements and albums; the custom is too common to need discussion here. But do you take any measures to secure an increase in such business, and do you try to have it come at a time when it will not interfere with your already busy hours? If you do not, then you are not working efficiently. The first of December is as late a date as you can afford to begin soliciting work of the kind; all that you can get in before that time represents a greater margin of profit.

Instead of waiting for such orders to come to you, drop a card or a letter to each of your regular patrons; head it with some eye-catching caption such as "Christmas is Coming!" Explain that every one is the recipient of unexpected gifts for which return must be made and suggest that a photograph is eminently suitable. State frankly that a special price will be made on all orders for enlargements, albums and framing received before the rush season; if you believe in that sort of thing, offer acknowledgment cards—which may be printed forms or post-card prints of your customer, if the amount of his trade warrants it—as a bonus with such orders. If you carry amateur supplies and Kodaks, then is the time to boom them—remember that every camera sold will pay you higher dividends than if you yourself invested

the price of the instrument in securities; this is the gift season; the one time of the year when purses long rusted shut will open, and it is up to you to get your share of the general good-will and prosperity.

Probably all of this has occurred to you and is already a part of your general practice; if so, well and good. But have you taken into account the patrons of your finishing department? Remind every amateur that the negatives which he so prizes will make enlargements highly acceptable as gifts; prove to him not only that they will be appreciated, but that they are the cheapest gifts of quality that he can buy. But don't stop there; just as you have suggested to your other patrons that Kodaks make ideal presents, put it in the mind of the beginner that now is the time to suggest to relatives and friends that supplies and additions to his outfit are what he wants. Thus are both ends played against the middle, and everybody satisfied; nor need you feel that you are lowering yourself by such a course—it is not only good business, but everyone is glad to have the worries of Christmas shopping lightened by such suggestions.

BY THE STRAUSS STUDIO
ST. LOUIS, MO.

BY THE STRAUSS STUDIO
ST. LOUIS, MO.

This is but a part of your aggressive campaign; it must be backed up by your largest, and cheapest advertising space, your show window. Decorate this, if it be nothing but a mere case, in the most effective manner possible; show what goods you have, and be free in the use of the advertising cards and dodgers which your supply houses will send you at this season. A few captions and catch-eyes of your own may be added, and across the top a drape lettered with some such sentiment as "The gift of a photograph is the nearest approach to a gift of yourself," may be suspended. Remember that your cards and circulars may bring people to your door, but that an attractive display will not only draw them through but will reach a volume of new business whose existence you may not have suspected.

So much for increasing the business which is already yours and for bringing as much as possible of it in at a time advantageous to yourself; there are other and wider fields not so often discovered. Every merchant in your vicinity is planing for the holiday trade long before the actual season is at hand; he is using every effort to get this trade and is largely increasing his advertising appropriation. If you will study the needs of each business a little beforehand, there is no reason why you cannot secure your share of this fund.

Take the jeweller, for example; he carries an expensive stock and deals with a class of trade which the ordinary advertisement will not always reach. Of necessity he relies largely upon his show window and counter display—but these are of little value until the customer is brought to their vicinity. Go to the jeweller, then, and offer to put his show window into the hands of his customers; suggest to him that the sending of photographs or even postal cards of the newest items of his stock to his more liberal patrons, or to those whose standing in the community is such that they should be more liberal patrons, will prove a delicate form of flattery, as well as sound advertising—ten to one a fat order will be the result. Nor should you be afraid to undertake such work, since it is an extremely easy branch of commercial photography; if you are in doubt as to means and methods, there are excellent little booklets upon the subject.

It may do no harm, however, to digress a little from the topic of this article in order to mention one or two little kinks which simplify the photography of certain articles. Thus, gold filigree and lace should be taken against a background of black velvet; hollow metal articles that are engraved or chased may be taken without loss of detail in the finest line by filling them with cold water and exposing when a film of moisture has formed upon the surface and before it has condensed into drops; cut glass articles appear best when filled with some dark fluid.

As with the jeweller, so with the druggist, the leather goods dealer, the sporting goods store and all others which deal in specialties and novelties. Do not pass up the general merchant, however; you cannot expect, perhaps, to interest the manager of a drygoods emporium in a series of views illustrating each and all of his stock in trade—but you can, and should, prove to him the advertising value of prints of his show window, in

HENRY HAVELOCK PIERCE OF BOSTON
AFTER PAINTING BY FRANK HALS
THE STRAUSS STUDIO, ST. LOUIS, MO.

themselves giving a condensed catalogue of his wares. He knows that newspaper cuts are expensive, rarely good and often fail to reach the very persons that he aims to interest; it is up to you to prove the personal appeal of the photograph mailed direct. Few up-to-date merchants will fail to appreciate the logic of your argument.

Moreover, the profits in this class of work are large, since a great number of prints will be made from the one negative; whereas the photographs of the many separate little articles which would be necessary in the work outlined in the preceding paragraphs would take much of your time, the general view of a store window is the work of a few moments. On the other hand, although the work for the jeweller and his kind is more exacting and designed to please a more particular class, it may be charged for accordingly, so that the proportionate profit remains about the same. But, because you are able to name a lower price to the merchant for a few hundred prints from the same negative, you proportionately increase your field. Thus, not only the larger merchants but the butcher, the baker and even the little peanut stand on the corner are potential clients. Beware, though, that you do not overdo; if every dealer in town, from Brown, the merchant prince, to Tony the bootblack, bombard their patrons with the same sort of advertising, your work may become so cheapened as to lose much of its value in following years.

Here your judgment must come into play; through your knowledge of local conditions and of the size of your town you must decide whether you wish to make your profit by working for each and all of the little catch-penny stores, or whether you can make exclusive contracts with the larger dealers.

Since we strayed from the narrow path previously in this chapter in order to give one or two hints as to the correct method of handling certain classes of commercial work, we may as well make our offense the greater by detailing some of the more efficient methods of show-window photography. Such displays may be taken by daylight in the ordinary manner, or in the evening—in the latter case the customary long exposure may be used, or the time shortened by the use of the flash. Evening work is an advantage, in that otherwise waste time may be employed and there is less annoyance from passers by; the flash saves still more time. The chief difficulty in daylight work is the presence of reflections; of long exposures at night, the almost certain halation due to the window lights; of the flash, even lighting and a placing of the powder so that the flame is not reflected into the lens.

The remedy for most of these faults lies in the use of non-halation plates; the new Hydra plates are even more efficient. The best way, however, is by the use of the flash: one should always be used on either side of the camera and far enough back so that no direct rays will reach the lens. To avoid reflections, you will need an assistant; with a lantern or pocket lamp, he can move about on either side until you cannot see his illuminant on the ground glass—naturally, your flashes will be placed at the points so determined. An even simpler method is to do this experimenting in your studio; you can then measure the distance from your lens to the object to be photographed, as well as the distance to each side that the flashes must be placed in order not to appear. With these conditions once determined, you can easily duplicate them upon the scene of action.

Naturally, the Christmas season is the one which offers the greatest opportunity for the photographer, but there are other holidays not entirely barren. At Easter, for example, there may be scant chance to compete with the houses that turn out cards by the million—but how about photographic advertising for the florist? Thanksgiving is in the same classification, but the up-to-date butcher and grocer ought to be willing to make a photographic appeal at this time.

Then there's New Year's—the season when tradesmen issue advertising calendars and yearly statements! The workmanship on some of these calendars is artistic—but on the majority is such that the householder consigns it speedily to the ash-heap. If you are willing to take the trouble, you should be able to build up quite a little business in advertising calendars that are "different."

In short, the holiday season is such in name only for the photographer; for him it should be a time of work, of opportunity and of harvest.

PRINTS BY

THE STRAUSS STUDIO

ST. LOUIS, MO.

ILLUSTRATING

"RECENT WORK BY J. C. STRAUSS"

BY SADAKICHI HARTMANN

BY THE STRAUSS STUDIO
ST. LOUIS, MO.

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ST. LOUIS, MO.

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ST. LOUIS, MO.

BY THE STRAUSS STUDIO
ST. LOUIS, MO.

STRAUSS "PAPA" CRAMER PIERCE

BY THE STRAUSS STUDIO
ST. LOUIS, MO.

THE PERMANENCY OF THE PHOTOGRAPH

BY A. J. JARMAN

WHATEVER may be said about the lasting qualities of the albumen print, its tendency to turn yellow, and sometimes to fade, one important point in its favor can be stated with all truthfulness. The albumen print is the only photographic print that has withstood the test of a lifetime in photography. There are many albumen prints existing today that were made thirty-five years ago which are still in an excellent state of preservation. If these prints are compared with steel engravings made at the same time, it will be found that the paper basis has changed in color to a greater extent than is the case with these well-made albumen prints. This may be partly due to the purity of the same paper.

Where permanency is desired the prints should be made upon albumenized paper, sensitized upon a plain solution of nitrate of silver, printed from a negative possessing body, with a little snap, so as to allow a good effective deposit to be formed by the continued action of light within the albumen film, never use an acid bath, the acid will partly destroy the albumen, then toned in a simple gold-toning bath, fixed well, washed well, and mounted upon a pure cardboard mount with a freshly made starch paste. Prints so made should withstand atmospheric changes, fumes and impurities far better than many of the modern kinds of photographic papers, especially a number of the developing papers. If thirty-five years constitute a test for permanency, they can be relied upon as permanent photographs.

Another point in favor of albumenized paper is that every quality possessed in the negative will be rendered in the print. In this respect the silver print is equalled only by the carbon or pigment print. A common cardboard mount that contains hypo-sulphite of soda will affect the color and permanency of any print, no matter what it may be; even the carbon print is affected by the chemicals contained in common cardboard, a yellowing of the whole print being brought about.

The carbon print is regarded as one of the most permanent of all prints produced by the agency of light. This is undoubtedly true, providing the process is carried out with scrupulous care. If it is not, the carbon print will change, although it does not fade in the usual sense of the term. The whites will and do become a very sickly yellow, the cause of this being careless manipulation. This defect can be remedied in the following manner: When a carbon print has been developed upon its support it should be allowed to remain in a 5 per cent. alum bath for only a few minutes, washed, and dried, and the transfer made as usual, say, in this case upon a paper support. When the print is ready to mount, trim it to the required size, and plunge it into a 3 or 4% alum solution (common alum). Allow it to remain in this alum bath for five minutes, so that the last trace of bichromate of potash is removed from the film, and wash well in several changes of water. This plan is far better than by means of a hose attached to the faucet. Blot off the superfluous moisture, paste up, and mount as usual.

Carbon prints produced in this way will not change color in the whites. The change of color which so many have taken to be fading is entirely due to the trace of bichromate of potash left in the film, *i. e.*, not washed out in the process of development, nor dislodged at the time when the print is placed in the first

alum bath. Carbon prints of all kinds are greatly improved by treating with a second alum bath, whether on porcelain, celluloid or paper, the trouble involved being small, and the results at all times satisfactory. The production of good carbon prints requires both skill and judgment. These can only be acquired by considerable practice and strict attention to every detail. Any attempt to hasten the work by shortening the time in the various details will assuredly produce prints that will change or produce the effects of fading.

Next to carbon stands the platinotype, which was also invented for the production of permanent pictures by the agency of light. Many years have passed since this process first came into use. The original process actually contained nitrate of silver, and the prints had to be fixed in hypo. This, however, was soon improved upon, when a hot solution of potassium oxalate became the developer, and the fixing or clearing bath consisted of oxalic acid, now displaced by the use of hydrochloric acid. The writer has in his possession some unmounted prints made in 1878 and developed by the hot bath process. All of these prints have changed in the whites to a decided brown. The more modern cold development platinotype process is invariably used today, and although a print in platinum is, no doubt, permanent as far as the material forming the image goes, yet the whites in many of these prints become a pale yellow or degraded in a comparatively short time. An inspection of photographers' showcases will reveal this as well as the prints that never reach the showcase, both mounted and unmounted.

What is the cause of this? Time and again it is due to defective manipulation. It will be observed that the best platinotype prints, those that retain the purity of the whites the longest, are those produced upon thin paper. The reason is that the hydrochloric acid which is employed as a fixing or clearing agent is better able to penetrate the thin paper within a reasonable time, and thus to effectually dissolve the iron salts contained in the platinum sensitizer. In the production of platinum prints it should be borne in mind that the thicker the paper the longer the print should remain in the acid-clearing bath. A fourth acid bath may be used with advantage when we have to clear a large number of prints.

On one occasion a test was made by leaving a batch of prints upon heavy paper in the fourth clearing acid bath all night. The result was that every trace of the iron salt was dissolved. They were then washed and dried. The whites of these prints were perfect; not one of them was known to change color. This trial gives convincing proof that platinum prints upon thick paper must not be rushed; if they are, fadable prints will result.

Platinotype prints are also affected by a mountant that turns sour. Acetous fermentation sets in; the minute trace of iron salt remaining in the print is converted into one of the lower oxides of iron by the acid in the paste, the result being that not only do the whites of the print become yellow, but in a short time change to a brownish tint. A good mountant is as necessary for a platinum print as it is for a picture in any of the silver compounds. Some photographers employ the common muriatic (hydrochloric) acid. This is fatal to the production of perfect platinum prints. The impurities contained therein, such as iron, arsenic, sulphur and others, will at once injure the print; this will soon become manifest upon exposure to light.

The production of photographs upon gelatine emulsion papers of late years has almost entirely displaced the older printing-out papers. The permanency of these prints is a matter which is problematical. Remarkable as it may appear, the majority of leading photographers do not employ this paper for general work, platinum, albumen, and carbon being generally used. For commercial purposes, where rapidity of production is essential and for the use of the amateur, gelatine printing-out paper meets the general requirements.

The large majority of prints upon gelatine printing-out paper rapidly show signs of fading, although some gelatine prints retain their original color and freshness for years. Many gelatine bro-

mide prints have shown only slight traces of fading, especially those developed with ferrous oxalate and printed upon porcelain. Some of these prints, although twenty years old, are just as good today as when they were first made, which would seem to prove that the permanency of the gelatine bromide print depends very much upon the support of the emulsion.

Prints made upon paper coated with collodion emulsion have also shown considerable signs of fading when the operations of fixing and washing have not been thoroughly attended to, and also when the mountant has become in the least decomposed. Toning in platinum does not seem to ensure that the paper will resist this action. In all the emulsion coated papers, which contain the citrates or citro-tartrates of silver, the tendency to fade has always shown itself. Even in 1864, when G. Wharton Simpson first invented the collodio chloride printing-out emulsion, this fading of the image was quickly observed. Those emulsions which consist mainly of a pure chloride of silver give the best results as far as nonfadable image is concerned.

The quality of the negative has also a great deal to do with the production of a permanent print. The negative should be of that quality which requires some time to print the shadow well in. It is important, in other words, to get a good reduction of silver to form the image. Unless this is acquired there is no appreciable quantity of material forming the image. When platinum toning is resorted to the printing must be very deep. Why? Because silver is known in chemistry as a non-avelent element and platinum as titravelent, which means that one atom of platinum can displace four atoms of silver. Hence, the platinum toning process is not one of so-called plating, but one of chemical substitution.

The fading of these compound-toned prints, which are toned in gold, then in platinum is due to several causes. First, owing to the negative being too thin to admit of a thoroughly deposited silver image by the action of light; second, to imperfect fixing and washing; third, to a mountant which easily decomposes. The trace of the silver image remaining in such prints is attacked by the imperfectly washed out hypo. These manipulations should be carried out in a thoroughly reliable manner in the printer's department. It is well-known that prints at times are simply rushed through two or three washings so as to get through on time. The paper or the chemicals are then blamed.

That a platinum-toned print is not a platinum print can readily be tested. Take a well-made platinum-toned print and a print in platinum. Place in a glass tumbler about four or five ounces of nitric acid. Take the prints in each hand and dip them into the acid at the same time. Count five seconds, remove them quickly and plunge into clean, cold water. Wash well, then blot and dry. It will be seen that the toned print has lost considerably by the test, while the platinum print is not affected.

The collodion emulsion print should prove to be one of great permanency if the operations of toning, fixing, and washing are properly carried out. If there is any doubt about the mountant, it is advisable to make a change, employing one containing an antiseptic.

By BESSIE MEISER
RICHMOND, IND.
OF THE WOMEN'S FEDERATION P. A. OF A.

LADY NEWBOROUGH
BY LALLIE CHARLES, LONDON

BY HOLLINGER

BY JACK RIVEES

BY PIRIE MACDONALD

BY MISHKIN

BY ROCHLITZ

BY ARNOLD GENTHE

BY J. L. HILL

BY FRANK C. BANGS

INTERESTING TREATMENT OF SAME SUBJECT BY PROMINENT NEW YORK PHOTOGRAPHERS

PRICES AND WAR

THE very sudden plunge of almost the entire European continent into war has, for the immediate present, unsettled business all over the balance of the world. In America it immediately became necessary to go over stocks of goods on hand and calculate the probable requirements and the probable duration of the war, and the first result was to get rattled. America did not realize that it absolutely depended upon European manufactures to such an extent, and when the supply was instantly cut off it apparently caught everyone totally unprepared. Immediately advices were sent out stating the seriousness of the situation, and prices advanced sharply. This was immediately followed by a rush of hurry orders, and prices advanced a second time, and a third. Everyone wanted to buy, and the sellers were independent.

The very latest advices from the sources of supply indicate that things might become very serious, but there are some circumstances that do not seem to have been considered that will change matters considerably. American manufacturers are not going to let themselves run out of materials and sit by without an effort to replace them from some other source, and before long we will learn of plans being made to manufacture more of these preparations in the United States, especially if Europe gives indications that the struggle there is to continue for any length of time.

The photographic chemical situation at the present writing is as follows: All of the coal tar products, in which list are metol, rhodol, elon, ortol, edinol, amidol, rodinol, hydrochinon, eikonogen, tozol, etc., are made only in Germany, and the supply is completely cut off. Potash, and its chemical preparations, like bromide of potass, carbonate of potass, ferri-cy-potass, etc., have come principally from Germany, but should be obtained from this country, as there are potash beds here that have not been touched. Magnesium metal is in the same class, and it will no doubt be made here, though for the present the supply is very limited.

Pyrogallic acid is made in Germany from raw materials brought from tropical countries, principally from India. The chemists of this country should soon be able to learn the art of extracting it and reducing it to the soluble forms in which it is sold to the trade. Aniline colors are also reduced from coal tar, and should be properly classed among the chemicals, but most of the dye-stuffs are used in other lines, such as the dyeing of wool and cotton fabrics, papers, etc. The very large requirements of these other industries will make it more imperative than ever that the United States shall learn how to reduce these most valuable products from the coal tar, which we have in such abundance in this country, but which we have heretofore wasted most prodigally. We have depended on another country for our supply. We have not developed our own possibilities. We were not prepared for a total stoppage of supplies. But now we are brought face to face with the necessity of getting ourselves out of the hole that we find ourselves in.

The Germans lead the world on chemicals, and early in the action notices came out in the papers telling of the situation, followed later by others giving more details. We reprint some of these announcements, the first one being of the date of August 5th:

"INCREASES MADE IN THE COST OF CHEMICALS AS RESULT OF THE WAR.

"Chicago, Aug. 8.—Increases ranging from 5 to 100 per cent. in the price of chemicals, principally imported from Europe, were announced by the local whole-

sale houses here today. Some chemicals from the warring countries cannot be obtained now at any price owing to the demoralization of transatlantic commerce. Russian and German products are especially affected. Photographic supplies have been especially hard hit, and the cost of moving pictures will be increased."

Medicinal chemicals and preparations were equally affected, and we reprint part of an article that was generally printed on August 12th:

"WAR'S EFFECT ON DRUGS—STARTLING ADVANCE AND A FAMINE IN CHEMICALS.

"Buying orders continued to be received in large numbers in the New York wholesale market for drugs, chemicals and essential oils on Saturday, and prices again leaped upward amid much excitement, says the *New York Journal of Commerce*. The day was replete with sensational developments in the way of price changes. Advances ranging anywhere from 50 per cent. to 100 per cent. took place in many articles during the day, and at the close the tendency of the market seemed to be in the direction of still higher values.

"The fear that the products of Germany, Great Britain and Russia, as well as France, Austria, Italy and Belgium, may be cut off for a prolonged period as a result of the war, and the cessation of ocean transportation accounts for the urgent purchasing of supplies now here and the upward sweep of prices. Practically every drug and chemical that grows or is manufactured abroad has participated in the violent upward rush of prices witnessed during the past week.

"The following table shows some of the more important advances which have taken place in drugs and chemicals since August 1:

	August 1.	August 8.
Opium,	$ 7.45	$ 8.75
Morphine,	4.70	5.50
Cocaine,	2.60	5.00
Quinine,	.26	.31
Quicksilver,	35.00	85.00
Calomel,	.60	.80
Carbolic acid,	.07¾	.35
Thymol,	2.75	6.00
Ergot,	.56	2.00
Bromide,	.49	.60
Salol,	.55	1.25
Olive oil,	1.05	2.00
Salicylic acid,	.22½	.50
Lemon oil,	2.00	3.50
Gum camphor,	.44½	.50½
Caraway seed,	.08	.18
Oxalic acid,	.07⅜	.20
Tannic acid,	.50	.60
Citric acid,	.70	1.00
Chloral hydrate,	.29	.55

"Business in drugs and chemicals recently has been on a larger scale than for many weeks past, and losses which were sustained by importers and manufacturers of drugs and chemicals as a result in the reduction of the tariff have been more than recovered."

In the matter of plates and paper, the glass used in plates is all imported, but that comes mostly from Belgium. The manufacturers, however, state that they have a very large supply on hand, and state that they have enough to last about a year.

The gelatine comes mostly from Switzerland, and the supply of that should not be greatly interrupted. Paper stock, which is used in all papers, comes from Germany and Switzerland, but there appears to be a large stock of that on hand, and even though new supplies may be delayed, it is possible to make a very acceptable grade of paper in this country, so that there is no danger of a complete exhaustion of stock.

As to the outlook. We will know inside of thirty days what may be expected as to the duration of the war. If it so shapes itself that indications are all in favor of it being long-drawn out, then plans will be made by very powerful interests to open up new sources of supply. The moving picture industry will attend to that, and it has enough money behind it to put it through when once it starts. There will be a scare, as, in fact, there is right at present, but things will become clearer in a short time. In the event that war will be rushed through in a hurry and will not be dragged out, then

BY THE HEYN STUDIO
OMAHA, NEB.

there is an ample supply to last until things are settled and new supplies can come in from the regular sources.

The market can be expected to respond to various rumors, and it may go higher. How long prices will remain up is a question, and when things are adjusted they will drop just as fast as they went up. From the best information available at present, there seems to be no alarm necessary that there will be a complete exhaustion of stocks in this country. It will be necessary to be careful, but there is no cause for great alarm.

—*The Trade News.*

EDITOR'S TABLE

Concerning the Coming Season

FOR the great majority of professional photographers the year is divided into two seasons, one of preparation, the other of actual production. The analogy, of course, is seen in the natural order of seed-time and harvest. Very few, if any, studios are kept busy all the year round. The later months of spring are usually, from a business point of view, dull or quiet. The summer months are loosely occupied with enforced recreation, or attendance at the conventions of the craft. The early fall months are devoted to active preparation for the winter business, the business season proper beginning with October and ending with April. With certain exceptions, therefore, due to local conditions or special classes of trade, the photographer's success or failure depends upon his output during six months of the year.

Wise photographers appreciate this inevitable division of the year. Their wisdom is apparent in the way they spend the season of preparation. Their success is seen in the quantity and quality of their work from October to April.

The season of preparation for 1914 is over. With October begins the season for business. The wise photographer has enjoyed his time of recreation, has garnered a goodly store of experience and instruction from his fellow-workers at the conventions, has put his plan of campaign for 1914-15 in operation, and within the next thirty days will begin to feel the pulse of the new season's business as the current of work flows in and out of his studio.

Business success is not a matter of chance, but the normal result of intelligent thinking and working. The few who appreciate this do not need any reminder of the fact. But the many are remiss and "let things slide" unless they are pushed. We write for those who have "let things slide." The photographer should not lose sight of the fact that his productions are, in a great measure, luxuries. People can do without photographs, as the hard times have clearly proved. But it is not difficult to persuade people to be photographed. The question of price is no longer a question of importance. The prime difficulty is to make photographs of such a quality or style as will demand the highest possible price. The successful photographer finds his patrons of to-day only too willing to pay a good price for his work, if he can offer them something of unusual value, something exclusive in style or finish, something out of the common in its attractiveness or interest.

In such times as these the largest measure of success comes to the photographer who puts the greatest amount of intelligence and forethought into his plans for the business season. Those who enter upon the season now opening with a carefully thought-out and well-matured plan of campaign will undoubtedly reap the reward their preparation has deserved. On the other hand, those who have let the

season of preparation pass unheeded will undoubtedly find business slow and unsatisfactory. *The public of to-day looks for the best in everything, regardless, comparatively, of any difference of a few dollars in the price asked.*

To those who do not feel prepared for what is before them our counsel is: Make up, as far as possible, for lost time. Read in the papers presented on other pages the methods and ideals offered by business men who are fully awake to present opportunities. See in the work reproduced in our pages what others have done to meet the demand for photography of the better sort. It is never too late to mend, but those who would benefit by the season now at our doors should lose no time. Does the business establishment need attention? See to it to-day. Are the styles on display lacking in attraction, or interest, or value, or quality? Strive, to-day, to remedy the evil. Has the important detail of publicity or advertising been overlooked or unappreciated? Put forth the best endeavor, get help if needs be, and see to it that your facilities are made known to the people.

ANNOUNCEMENT

WE take pleasure in announcing that Mr. Alfred J. Jarman, the well known writer and chemist, will be a regular contributor to our pages. By special arrangement, Mr. Jarman will also be on our laboratory staff for consultation, and hereafter any queries relating to photographic process and its chemistry will receive prompt and authoritative attention.

TRANSLATIONS AND ABSTRACTS

BY E. J. WALL, F. R. P. S.

THE EUROPEAN WAR

As a direct and immediate consequence of the European war WILSON'S is face to face with an exchange list that is entirely confined to the English and Mexican journals, for not a single French or German paper has come across since the beginning of August. Therefore the title of the few columns that I have the honor to contribute is somewhat of a misnomer.

Whatever may be one's sympathies there cannot but be borne home to every one a lesson which should be of the most serious moment to every American. The war has at once proved that we—we photographers—have been almost entirely dependent on European nations for our raw supplies; for our raw paper stock, in some cases even for our baryta paper, for our gelatine, our developers and our glass, whether the latter be for plates or lenses.

The question naturally arises whether such a state of things is essential. Is it actually impossible for America to produce the raw stock for photographic manufacturers?

Personally my feeling is that the answer should be in the negative, but the practical man says that the American cannot compete with European nations because of the cost of labor on this side, and I must confess that he has probably the best of the argument. I have worked in England, France, Belgium and Germany. I know the actual rate of wages paid to workmen, to the skilled expert. I have worked on this side nearly five years and I believe that I am old enough to take a broadminded view of the whole situation. I am not bigoted, but I can see many points that probably the true American cannot see.

Taking first the question of developers. All that we use at the present time may be roughly classified as coal tar products, and the point arises whether there is sufficient raw material here to enable manufacturers to produce the same. I have made no exhaustive examination, but from reliable sources I gather that there is absolutely no reason why the big chemical houses should not supply us with all developing agents we want in a few months. Taking but the two most commonly used, metol and hydroquinone, these are not difficult to make, there are no patents restraining the manufacture of the same, and whilst at first the quality as regards color, or rather want of color, that is the whiteness, might leave something to be desired, we would be quite content with products that were not snow white, provided they gave us good negatives and prints. It is an open secret that a large chemical house actually started making hydroquinone and metol a year or two back and then dropped the same as they could not compete with the Germans as regards price. But as this source of supply is cut off, it is obvious that this trouble no longer exists. Assuming that one or two firms could turn out our developing agents they would be able not only to supply

the whole of the American trade now, but would be in a position later on to actually compete with the Germans, for one of the inevitable consequences of the war must be a shortage of labor in Europe and consequent higher wages.

With regard to dry plate glass it cannot be denied that all the raw materials are here and all that is required is a sufficiently broad mind on the part of the glass maker to accept the basic principle, which personally I think should be the guiding principle of all business—namely supply your customer with what he wants, not with what you think he ought to want. I have reluctantly come to the conclusion that the average American manufacturer will not go out of his way to produce anything that is not his standard stock. As long as you will accept a stock article, be it a watch, a razor, a chemical, or a machine, then the American make is better and cheaper than any European make. But if you require something that is not standardized, then it is cheaper to go to Europe and have what you want specially made and pay freight and duty and you will obtain a better and more satisfactory article. The average manufacturer on this side wants an immediate return for his money; the European, on the other hand, is prepared to look to the future to some extent for his profits or for repayment of his outlay.

It may be asked what is the justification for this digression, and I can only say that some months ago at a lecture by the representative of one of the biggest glass manufacturers in this country, when I asked why all dry plate glass was obtained from England and Belgium, I was told that a special quality of glass was required AND THE TRADE WAS NOT BIG ENOUGH TO WARRANT ANY GLASS MAKER TRYING TO SUPPLY THE DEMAND.

The outlook in the raw paper trade is much happier. Some raw stock is already made here, and whilst it may not have quite the customary surfaces, it is pure and equal to the European in quality and price, and there is every indication that more will be made to meet any demand.

The question arises as to what photographers can do to meet the unprecedented state of affairs. Naturally the shortage of developers suggests the repeated use of a developer and within reason, particularly in the case of the organic developers, this is permissible, and when a developer has been used for negative work there is not the slightest reason that it should not be conserved and used again for developing prints. Theoretically, of course, this method is hopelessly wrong, but in practice a developer may be used as long as it will give pleasing tones, though naturally a time comes when the bromide produced in developing will influence the color of the print.

At the worst we can revert to the use of ferrous oxalate and its many modifications, but one can only hope that before such a necessity arises American chemical manufacturers will meet the demand by actually making some of the organic developers. In the mean time we must keep our heads and not go to the extreme of laying in stocks of materials when in all probability we shall soon be able to purchase native material.

E. J. W.

An English Criticism of American Work

The exhibition of the Royal Photographic Society has opened in London, and the following criticism of the American exhibits may be of interest:—A gathering of American work forces upon the spectator the conviction that the ideals of England and America are widely parted. Whilst photographers in this country seem to find their inspiration in the attractive aspects of ordinary scenes, and that generally with an eye to naturalistic effects, the Americans appear to be stimulated only when something extraordinary presents itself. They like the thrills of their great cities, the darkness of dark places, the ugliness of things. They hit hard in their work and push their ideas right home. Their subjects are usually too big for the paper; invariably too dark or too light or too contrasty for nature. The happy mean is for them the feeble falling between two stools, and the consequence is that tenderness is a quality they seldom show, whilst strength, virility, and a big scale are their usual characteristic..... When one has summed up all the peculiarities that can be placed to the debit of American work one cannot but put on the opposite side of the account its remarkable wealth of "quality." That scarcely ever fails, and it is positively characteristic of transatlantic pictorial photography. The way, then, to enjoy American work is to get the habit of throwing overboard all one's notions of what is reasonable, natural, and ingenious, so as to be able to set a right value upon what merit it possesses, without having experience, knowledge, principles, traditions, logic coming in to upset one with their questions and demands. Some people can do this easily; some can never do it. It is often a great bore to have to do it. With the finest and greatest art it is not necessary to do it.—*B. J.* 1914. *p.* 660.

The Right Spirit

"When people have faith in you, success is sure to come. And people will have faith in you, if you have faith in yourself.

"If you try to gloss over your own faults, lie to yourself, this is not faith.

"But when you see the past, the present, the future, all with one optimistic look, one optimistic review—if you believe in life, and your own particular possibilities, you will show it.

"And when you show this spirit, big men will be attracted to you, and when big men take hold of you, watch yourself climb."—*The Silent Partner.*

PHOTOGRAPHY IN GREAT BRITAIN

A Review of the Month from our own Correspondent

ROYAL PHOTOGRAPHIC SOCIETY ANNUAL EXHIBITION IN LONDON

The American Aspect

The annual autumn exhibition of the Royal Photographic Society of Gt. Britain opened in the galleries of the Society of British Artists at the beginning of September. By number, class, and quality of the several pictures exhibited the "Royal" this year appears to outstep last year's success but whether the attendances of the general public, of the distinguished art critics and notabilities in the realm of painting and drawing will be all that can be desired is doubtful. A few contemporary exhibitions have already closed their doors or else abandoned or postponed their exhibitions but it is to be hoped, and not unreasonably, that the grave shadow hanging over the country at the moment, will not materially interfere with the show, from the point of view of public patronage. Nevertheless one direct effect of the war upon the exhibition has been manifested already by the unusual silence of the general press. In the ordinary course—and more pronouncedly so in recent years—the attention and space devoted by our leading newspapers to the annual display of England's leading photographic body has equalled that given to some of the best and most important art exhibitions in the country. Quite naturally this influence must have weighed considerably with the patrons of art exhibitions not to mention the vast populace who would visit it as a photographic exhibition pure and simple. At the private view the representatives of the general press could be counted upon one hand and what last year amounted to careful critiques is displaced by the peremptory paragraph. All this, of course, is by the way and shows a state of affairs which, however undesirable, we must accept philosophically at such a time, yet to the regular attendants the first view must have afforded keen gratification upon every aspect.

To those people engaged in the study of the traits and characteristics of the Teutonic race an exhibition so international in appeal as this must offer some material. This time we have a few clever portraits from German workers of note. In every case they appear forcible and aggressive and reveal the sitter in bold, dominating posture. Take the most studiously arranged subjects. Even in landscape, there is marked desire to isolate the principal object of a picture by a careful, often ingenious, suppression of detail amounting to nothing more nor less than obsession. Context is negligible. It is the main object and upon it they concentrate but at no artistic sacrifice.

Beyond these few German prints the continental work does not merit special study. Indeed, the difficulties of consigning entries through from some countries owing to the war seems to have told its story. But what is lost at one end is more than compensated at the other. A large invitation collection of photographs from the United States may be truthfully said to constitute the feature of the exhibition and consequently came in at the opening for much criticism, hostile and friendly. If to the mind and ideas of the American photographer the British worker appear conservative, or as we have been told, "addicted to the beaten path of art," the American will in future not belie his reputation as a hustler even in photography. "Some of the specimens in this collection while quite good in composition and treatment later reveal themselves as the most peremptory in existence," said a well known critic. How far this is justifiable is controversial, for the same may be said of certain British work. Perhaps it is the effect or impression produced that is perplexing, but in every case the effect aimed at is secured without leaving too much to the imagination. These prints teach us many things. That it is useless for instance to attempt to realise upon paper a skyscraper unless we have our paper large enough and that it is equally futile to expect an effective portrait of an ugly nigger unless we take him in his ugliest attitude under the most revolting conditions. Alwin L. Coburn's admirable creations will undoubtedly be analysed closely, in particular the landscapes and sea studies. His portraits of celebrities have already been with us throughout the summer and are familiar. They are really above criticism, unfortunately the same does not apply to certain futuristic fancies hung in close proximity.

The study of the nude does not find favor amongst photographers in this country to extent. Apparently it is favored to exaggeration in the New World if the efforts of Frank Eugene and C. H. White, are criterions. Both show extraordinary lighting effects and a great degree of judicious arrangement. Next to Coburn five prints by Alfred Stieglitz, command attention and they have aroused a mild discussion in their differentiation from most others in the American collection. Stieglitz prints are not of the impressionistic order; unlike some other

American (and also British) examples they are content to remain strictly "sober" and natural. Explosive subjects also have no appeal to offer Wm. E. McNaughtan, Clarence White and Karl Struss. And in the length it is not to be wondered at for fashions of the post impressionistic and futurist style change quickly in every branch of art. An every day natural subject dealt with in a natural manner, be it a building, a landscape, or a child with a toy remains unchanged as a picture for a generation; but what the photographic artist of fifty years hence will think of an attempt to represent in silver and bromide the state of mind of an inebriated pedestrian in Broadway or the Strand is beyond assumption.

Turning to the technical section we have a fine display of new and clever astronomical records which are obviously of great scientific value. The photographic staff of the Mount Wilson observatory in California, is to be congratulated upon its successful work through the famous telescope while a word of commendation is also due to the authorities at Yerkes Observatory, Wis., and the Dominion Observatory in Canada, for their photographic researches amongst the lesser constellations. To the Harvard University Observatory a special medal has been awarded for their exhibit. Mr. V. Cornish, shows a number of geological studies made during the past year along the banks of the Panama Canal in which the causes and effects of the awkward landslides are evident. In the trade section F. Hollyers exhibits a few remarkable three color imitations of old masters while the Poly-Chromide Co., have a very fine reproduction of a Rembrandt by their process. The Ansco Co., and the Eastman Kodak Co., are also adequately represented in several departments.

The British work is grouped in a separate gallery. Bromide and Bromoil are again the popular media. For controlled prints the latter process is almost exclusively used and its suitability is clearly demonstrated in a mountain picture by F. H. Evens. Portraits are well to the fore in the home section with lighting effects many and varied. Notably a dignified, if gloomy and heavy, reproduction of Paderewski, the contribution of the president of the Society (Mr. Farley Lewis).

J. B. S.

WAR "SNAPSHOTS" FROM ENGLAND

Sept. 1st 1914.

THE time that must necessarily elapse between the penning and publication of these notes precludes one from saying very much about things, but a few notes, on how the great European war is interfering with the trade, profession and amateurs may be of interest, although I daresay our American friends are feeling the blow that has been dealt out to us quite as much as we are. We have for so many years looked to Germany for so many of our chemicals, papers and even cameras, that we have a strange sort of feeling now that our supplies have stopped. The Germans are the cleverest of chemists and opticians, a fact no one will deny, and no one is better acquainted with the work that the Germans have done than Prof. E. J. Wall, of Syracuse, whose extracts from German literature form one of the most interesting sections of this journal. We in England hope to get their literature again later on, but efforts are being made to produce the necessary chemicals in England, as for patriotic as well as for other reasons the German-made goods are scarcely likely to find a market amongst Britishers again.

The photographic journals felt the effects of the war very quickly, and are still feeling them, for at the outbreak of hostilities advertisements dropped 50 per cent. or more. The falling off is due largely to the advertisers of German goods dropping out, also to the real British firms abstaining from spending money on advertisements during the war. The latter idea does not appear to me to be a wise one, but I am told that it is.

We had a big scare during the week that followed the declaration of war, but happily it quickly vanished. Photographic dealers asked scare prices for many chemicals and got them, but they were more successful with the cinematographic firms than with professional and amateur photographers. The biggest run was of course on developers and hypo. The price the amateur was in the habit of paying for his hypo was two pence (4 cents per lb.). Dealers at first seemed undecided as to what to do and one shilling (25 cents) per lb., was asked and in many cases obtained; this, however, was a scare price and although a further increase was threatened the price came down with a rush, and since the first week of the war hypo has been sixpence (12 cents) per lb., at which price we are told it will remain. We must, I suppose, consider this cheap, as in 1845 it was sixpence per ounce, it falling to 6d per lb., as it is now, in 1857. The price of potassium bromide has been raised 50 per cent. and we are told that it will be some time before we can get it at the old price—4 cents per oz.

As regards developers the strongest efforts are being made to revive ferrous oxalate, an old and tried developer which served us very well indeed before the days of metol and other German agents. During the first week of the war there was a wild rush for German

developers, and six-shillings ($1.50) per oz. was paid for hydroquinone and $2 for the same quantity of metol; dealers I understand have now sold out, and we all are anxiously awaiting the British-made, or Swiss-made substitutes that are promised. It is hardly safe to mention proprietary developers as changes in prices are expected, but there can be no harm in stating that to-day (September 1st), the price of Azol and other developers made by Johnsons & Sons, remain the same, while the Tabloid products of Burroughs Wellcome and Co., have been raised 33⅓ per cent.

Press and cinematographic operators are having a very rough time of it owing to the strict censorships, many of them as well as several amateurs, have been arrested for taking apparently harmless pictures. At many of the coast towns cameras are prohibited and the use of one within five miles of some of them means trouble — if the operator is caught.

The professional worker has an additional trouble to battle with, namely, the "free sitting" dodge, at any rate he thinks it a trouble, although it is open to every worker to adopt the same tactics. Some of the large stores—Selfridge's of American origin, is one—have announced that they will take and present, free gratis and for nothing, photographs of soldiers going to the war. Only one copy is presented, of course, and most if not all of the firms look forward to selling copies either to relatives, friends or newspapers, the latter showed the "sitter" perform some heroic deed and become famous. The Professional Photographers Association sent a letter of protest but no good came of it, and the game goes on merrily. Many photographers looked forward to the task of copying some of these free pictures and supplying them at a cheaper rate than the giver of the free copy would do. It has, however, been pointed out to them that the law of this country makes such copying illegal, as, if the portrait is taken free, the photographer who took it retains the copyright, even if the sitter orders and pays for subsequent copies. This is a very hard nut to crack. *L. Tennant Woods.*

NOTES AND NEWS

The Real Meaning of the War to Us

"A great war in Europe, will enable the United States to sell its crops in places which will give a much greater income than if there was no war. Almost every industry will derive more or less advantage.....should the American people take advantage of the golden opportunity afforded them by the outbreak of the war, it will mean not diminished but increased prosperity for the United States."

The Latest

The Autographic Kodak is a good camera for professional photographers. With it you can date and title your negatives and make any necessary notes at the time you expose the negatives. That means you have a permanent record of the details regarding each picture. When taking pictures of your children, your home, your friends, as well as places of interest you visit, use an Autographic Kodak, then you can put the dates and notes on each picture, which will add to the value of them all. Ask your dealer to show you this latest Kodak.

Parcel Post

October 30, is the date which has been selected to send letters to the Third Assistant Postmaster General, Washington, D. C., asking him for consideration in regard to having photographs entered in the Parcel Post classification. Every photographer in the United States will be asked to send a letter to the Third Assistant Postmaster General on that date in which an urgent appeal will be made for the consideration which we believe we deserve.

Many other organizations have secured the Parcel Post rate simply because they have brought pressure to bear on the Postal authorities. The time has come for us to work as a unit.

So far no attention has been paid to the appeals of the committees sent by the Photographer's Association of America, and we must now show that this is more an individual matter and can only be accomplished by personal letters from thousands of photographers in the United States.

Mark October 30, on your calendar. Do not fail to write to the above address, mak-

ing the appeal as strong as you can in a typewritten letter.

On that date the secretary will write the following letter:

WASHINGTON, D. C.,
October 1, 1914.

THIRD ASST. POSTMASTER GENERAL,
Washington, D. C.

DEAR SIR:

The photographers of the United States feel that they are not receiving the consideration that they should in having photographs excluded from the Parcel Post classification. At the National Convention of Photographers, held in Atlanta, Ga., June 15 to 20, the following resolution was passed:

"Resolved, That the P. A. of A. assembled in Atlanta, wish to go on record as expressing their feelings of indignation against the unfair discrimination by the postal authorities for not allowing photographs the benefits of Parcel Post.

"Be it further Resolved, That the legislative committee take proper steps to secure Parcel Post rate for photographs."

We can see no reason why photographs should be excluded from Parcel Post classification since books and other printed matter have been admitted. Therefore, we beg you to give this matter your serious consideration.

Fraternally,

EUROPEAN WAR AND FLASH POWDERS

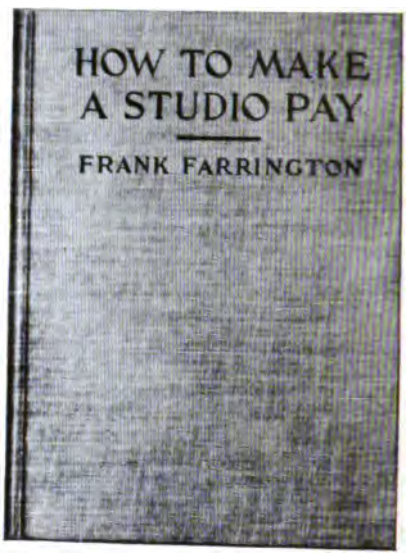
POWDERED Metal Magnesium is an indispensable ingredient of all first-class Flash Powders. Such magnesium is the product of German manufacturers. It is not produced at present in the United States. This country has been supplied by the German producers, but as that country is now at war, it is impossible to secure supplies from that source, and there is no other source of supply known. There is just a faint hope that it will be produced in this country within a few months, but at present that prospect is scarcely more than a dim hope.

In the meantime we have secured every pound of magnesium available in this country, although we have been compelled to pay *very high prices* to get it. It therefore becomes imperative that we *withdraw all previous quotations on Victor Flash Powder and Actino Flash Cartridges*, and we will only be able to supply them in limited quantities, and only as long as our stock of magnesium holds out. Under the conditions it should last nearly three months, but we hope by limiting quantities, to make it last longer. Let us hope that by the time we run out, that the war may be over, or that some other source of supply may be developed, so that we can again restore normal conditions, and prices. Write James H. Smith & Sons Co., 3541 Cottage Grove Avenue, Chicago, Ill.

NOW READY

"HOW TO MAKE A STUDIO PAY"

A MANUAL full of good wholesome material and an invaluable reference book for every member of the profession, big or little. Ryland W. Phillips, the well-known Philadelphia photographer, in his carefully prepared introduction, says: "Mr. Farrington has placed in our hands a valuable book, every chapter of



which is well worth careful study. He has given us an analyzation of the business side of our daily work; he has attempted to show us not only 'How to Make a Studio Pay,' but how to make OUR studio pay better. I say this because I believe there is not a photographic establishment in existence that has yet reaped its possibilities of profit-taking."

No more important hand-book for the professional has been issued in recent years. The practical subjects covered include: "Buying and Arranging the Stock," "The Treatment of Customers," "System in the Studio," "How to Know the Profits," "Credit and Collections," "Developing Side Lines," "Business-Getting Schemes," etc., etc.

This will be an invaluable hand-book for every studio. Price only one dollar ($1.00) postpaid. All orders will receive prompt attention.

THE WAR AND THE PHOTOGRAPHIC MARKET—NO PRESENT CAUSE FOR ALARM

OWING to the temporary elimination of trade with European countries, a condition precipitated by the present war, the prices of some photographic chemicals will be rather unstable for a time. The future prices and those of your stock dealer, on the Eastman Tested Chemicals affected, will necessarily

be subject to changes in accordance with market conditions. This condition is due to the fact that most photographic chemicals or bases for such chemicals are procured in the Foreign Market, and at the present time the stock of some of these chemicals in this country is limited.

It is sincerely hoped that these unexpected conditions may be relieved shortly and that conditions may become normal before they prove a hardship upon the professional photographer.

As to the supply of Plates, Papers and Eastman Portrait Film, there is no occasion, at present, for alarm, as they always have on hand a large stock of raw materials and will be able to supply the demand for these goods for some time to come regardless of foreign conditions.

EVEN WAR HAS ITS BRIGHT SIDE—AND THE RADIOPTICAN REFLECTS IT.

All the interesting war-maps and battle-pictures in the newspapers and magazines, as well as the post-cards and pictures of famous European cities and other scenes of current interest will be shown in thousands of RADIOPTICANS this year.

It is the home entertainer of the hour, equally good for serious and for light entertainment. It never grows old, for its material is always new. It takes any flat picture or clipping and reproduces it in a big brilliant picture in natural colors. No slides have to be made. There is no waiting.

It is a big improvement over the old style magic lantern and has already become known as the standard projector at a popular price.

Now is the time to be planning for your fall and winter business on RADIOPTICANS. Do not delay too long.

The complete line of RADIOPTICANS may be seen at the New York Office of the H. C. White Company at 45 West 34th St. This is directly opposite the McAlpin Hotel. Catalog will be sent to any interested parties if application by mail be made to the home office at North Bennington, Vt.

A NEW SCHOOL OF PHOTOGRAPHY

The Clarence H. White School of Photography at 203 East 11th Street, New York, will open its doors early this month. It is founded as an institution for teaching the science and art of photography and for the training of its students for the vocation of photographer.

The school will afford every facility for experiment and practice under constructive criticism of its principal.

The special lectures on art are intended to acquaint the student with the principles of art appreciation and to enable him to use his medium for expressing his aesthetic sense. Mr. Max Weber, the lecturer on art, is recognized in Europe and in the United States as a distinguished artist and an able exponent of plastic art.

The technical demonstrations by Mr. Paul L. Anderson are intended to instruct the student in the chemistry of photography and the laws which govern lenses and their employment. Mr. Anderson is an acknowledged authority and writer on these subjects.

One of the features of the school will be periodical visits to the Metropolitan Museum of Art where the students will hear lectures on distinguished art objects.

Mr. Clarence H. White, the principal, is a lecturer on art photography at the Columbia University and the Brooklyn Institute of Arts.

Students may register now.

WILLOUGHBY'S SQUARE DEAL PHOTO SUPPLY HOUSE

At this writing there still seems to be a shortage of developing agents occasioned through the continuance of hostilities on the other side of the water, and an excited army of photographers rushing into the market in their endeavor to get sufficient supply to last them six months or a year. Under these conditions it is very natural that prices should advance and they have advanced to unheard-of proportions. It is the writer's opinion that there will soon be a reaction in prices all along the line, especially on Hydrochinone, and I have taken steps in this connection to prepare myself that our own customers will not suffer for this particular developing agent. I am sure from what I can gather that there is also a possibility that some substitute for Metol will come along, and it is also possible that other shipments will arrive from abroad. Within a month from now, I hope to be selling Hydrochinone at lower prices than are being offered to-day, and at the same time have a sufficient quantity to take care of the needs of all my customers and perhaps some besides. C. G. Willoughby, 810 Broadway.

The Associated Press, evidently lacking authentic news for publication from the seat of war in Europe, is apparently doing its utmost to keep this country in a state of turmoil by spreading broadcast scarehead articles.

The dispatches circulated by the Associated Press stating that Ansco Company has shut down due to lack of foreign raw materials are without foundation and we want to assure our dealers that there is *absolutely no truth* in the report.

They are running full time in all departments and are well supplied with imported materials.

16 GOOD REASONS FOR ATTENDING THE 16TH ANNUAL CONVENTION

Photographers' Association of New England, Copley Hall, Boston, Mass., October 13, 14, 15, 1914.

No. 1. Organization is the watchword in every business and profession, and not to belong to one that pertains to your work is to label yourself a back number.

No. 2. You ought to, as it will broaden your viewpoint for a whole year.

No. 3. You want to, for you will enjoy meeting old friends and making new ones.

No. 4. It is your duty as well as privilege to profit by improvements thought out during the year.

No. 5. Your presence means that you are actively interested in the forward movement of your profession.

No. 6. You will see the best examples of photographic art by the leading men of the day.

No. 7. Every demonstration will show you how to make better and more striking pictures.

No. 8. You will get a larger insight into new and more artistic working methods.

No. 9. Your imagination will be stimulated; a much needed accession in modern photography.

No. 10. Your patrons are entitled to whatever you can learn for their benefit.

No. 11. If you care to win out, you must mingle with the winners—"like begets like."

No. 12. Every branch of photography will be represented by an expert.

No. 13. You cannot fail to add to your mental equipment by mingling with those of keener minds.

No. 14. Business methods are discussed, and quicker and easier ways of getting desired results.

No. 15. Show your appreciation by your attendance, and make the year a memorable one in the annals of the convention.

No. 16. You will have a finer conception of the artistic side of your profession by a careful study of those pictures which are deemed worth of a prize.

The executive board have had you and your welfare in mind when planning for your profit and entertainment, that the Sixteenth Convention of the P. A. of N. E. may long be remembered as one of special importance in your career.

THE BLUE PRINT INDUSTRY

Scarcity of Potash and Iron will Check Manufacture

As all the potash and iron salts used in the process of blue-printing come from Germany, and as fresh supplies are not likely to reach the United States until the war is over, the manufacture of blue-print paper will be seriously interfered with and may eventually be stopped.

Philadelphia is the center for the manufacture of blue-print paper in this country. While most of the makers have fairly large stocks of the necessary chemicals, much concern is being felt over the future. If a shutdown of the factories come, every railroad, machine shop, engineer and architect will be seriously inconvenienced by the shortage of blue-print paper.

The Photographic Department of The Brooklyn Institute of Arts and Sciences announce an intermediate course in Photography in addition to the course in the Rudiments of Photography which has been conducted so successfully for the past four year by Mr. Wm. H. Zerbe, under whose direction this new course will be given.

This new course has been instituted on account of the numerous requests made by a number of amateurs, who have already attained a fair knowledge of the chemistry of photography but lack the essential qualifications for pictorial work.

Persons desiring further information may obtain same by sending for a Prospectus outlining the Courses, cost of tuition fees, etc., by addressing The Brooklyn Institute of Arts and Sciences, Academy of Music, Brooklyn; or Mr. Wm. H. Zerbe, 345 Spruce St., Richmond Hill, N. Y.

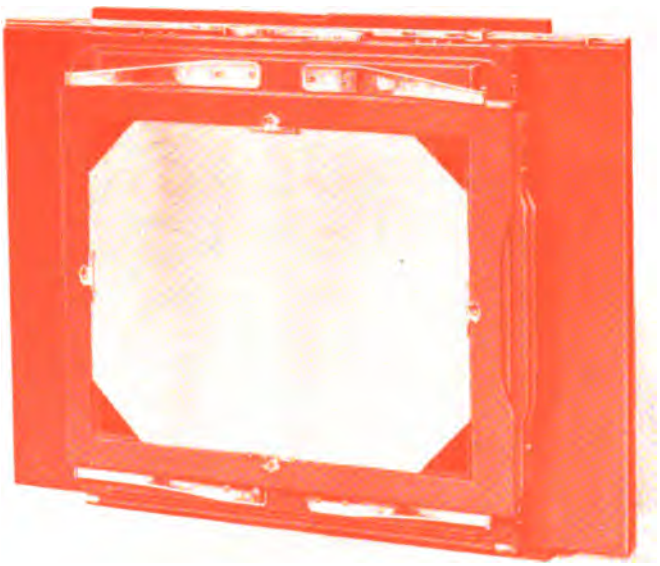
"SATURDAY WITH MY CAMERA"

By Stanley C. Johnson, $1.50 net

As its name implies, this handy book is writtten primarily, though by no means exclusively, for the busy worker who can only devote to this most fascinating of pastimes the leisure which week-ends bring.

The book is divided into four main sections, Spring, Summer, Autumn and Winter—titles which are to be interpreted both literally and metaphorically, and is fully illustrated.

With regard to the formulæ quoted in the various chapters, some are known and used the world over, whilst others do not share in this notoriety. All, however, were personally tried and tested before being given a place in the pages, and the many practical hints and suggestions will prove of real value to the Amateur.



Sliding Ground Glass Carriage *for* Double Plate Holders

Sliding Ground Glass Carriages are made to fit the 8 x 10 and 11 x 14 Century Studio Cameras, and are so constructed that the receding ground glass panel can be shifted to either side. This allows the operator to make two 5 x 8 exposures on an 8 x 10 plate, or two 7 x 11 exposures on an 11 x 14 plate. When the back is centered, the full size 8 x 10 or 11 x 14 negatives may be made.

Double holders for either plates or Eastman Portrait Films are supplied for use with the Sliding Ground Glass Carriage.

THE PRICE

11 x 14 Sliding Ground Glass Carriage with one 11 x 14 Sterling double Plate Holder	$21.00
8 x 10 Sliding Ground Glass Carriage with one 8 x 10 Eastman Double View Plate Holder	18.00
11 x 14 Sterling Plate Holders, each	6.00
11 x 14 Sterling Portrait Film Holders, each	6.00
8 x 10 Eastman View Plate Holders, each	1.25
8 x 10 Eastman Portrait Film Holders, each	1.25

CENTURY CAMERA DIVISION,

EASTMAN KODAK COMPANY,

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VOLUME LI NUMBER II

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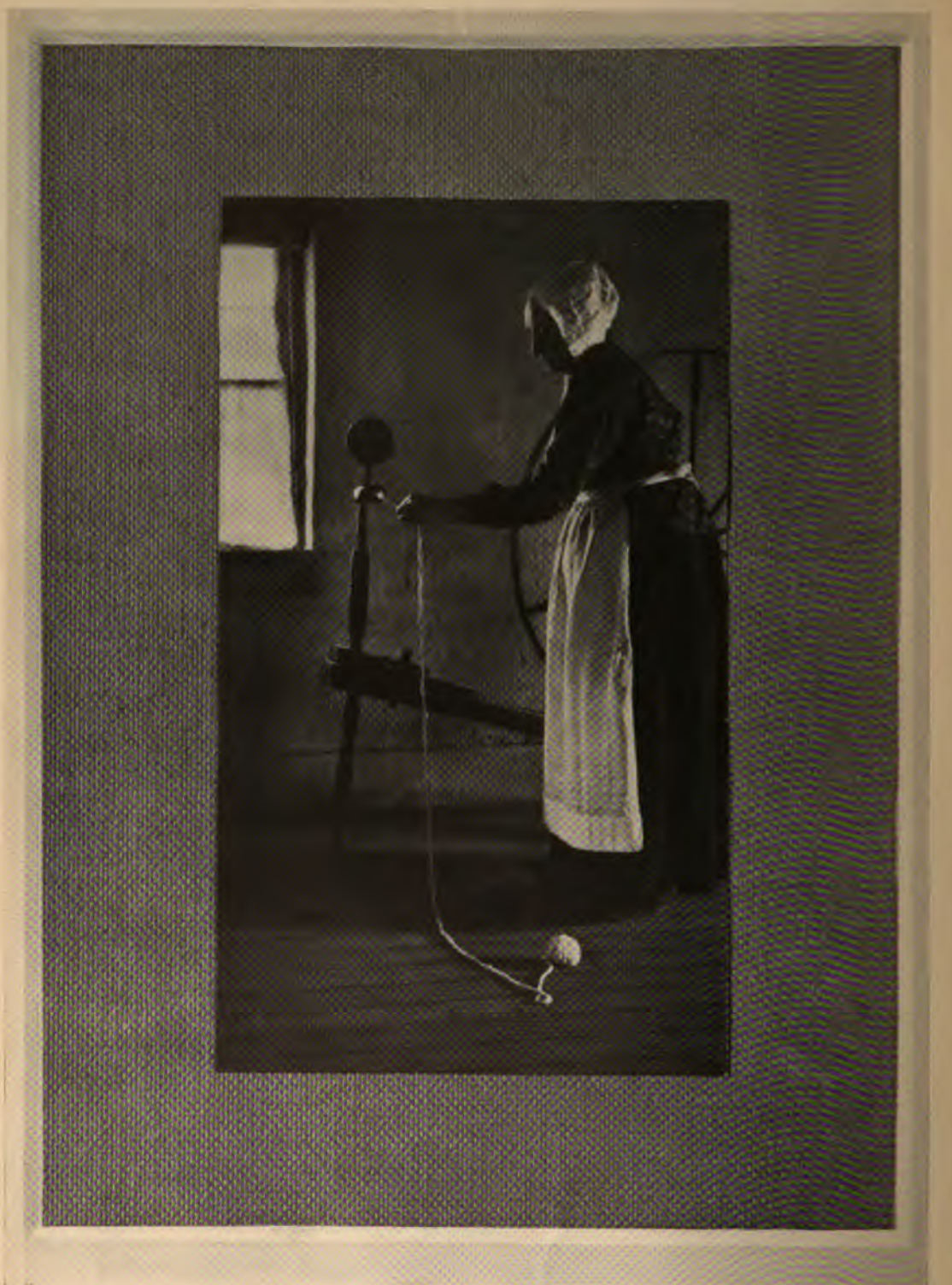

By NANCY FORD CONES

LOVELAND, O.

WILSON'S PHOTOGRAPHIC MAGAZINE

FOUNDED IN 1864 BY EDWARD L. WILSON

VOL. LI NOVEMBER, 1914 No. 11

NANCY FORD CONES

THE WORK AND PERSONALITY OF A REMARKABLE WOMAN

BY SIGISMUND BLUMANN

NANCY FORD CONES probably stands foremost among American pictorialists. Her work is not spectacular nor sensational. She works in a retiring way and makes pictures that have a classic value. She is not a photographic colorist, nor student of the nude, yet to the artist she carries her message of color and anatomy. Looking at her work you would not comment on the wonderful management of light, the planes, qualities, perspective, or any of the stock terms of the ultra academic. Yet a prominent artist to whom I showed "The Grandmother" commented (to my pain as a photographer), "This is not photography but art." He had the conceit of many brush-wielders who seem to feel they have gathered all art into the pot wherein they dip their brushes, but he stated a great truth. Art in photography, no less than in any other branch, is disguishing art. Herein Mrs. Cones excels. When I find a picture, on my hunts with the camera, it discovers itself to me by some striking feature, and I hurry to get it on the plate. I'm a dub. When she presses the bulb, there has gone before a season of thinking, planning, feeling. The idea being rounded and the mood propitious, she takes the picture. Observe them and draw your own conclusions. Classics are never lucky accidents.

When Mr. Watkins asked for an article on Nancy Ford Cones, it was my first motion to learn the personality of my subject and it did not surprise me to find she cooked the family dinner, made her child's dresses, and boasted of being a "home maker." I have that sort of a mate and know to expect great things of the mother. The hot air of Bohemia gives an exotic art that lives, lushly, and dies with its day.

That flame which the aspirant sees on the Olympian heights as he looks up the Parnassus he hopes to climb, is not the less divine in that it is a Jovian forge fire. Once I tramped two hours along dusty roads uphill all the way to

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see my friend Joaquin Miller at his own shrine. His weakness for posing—which weakness was after all the courage to look and act whatever part pleased himself—was known to me. I found him very unaffectedly, very earnestly indeed, digging a trench. It is said that Rosa Bonheur cooked a splendid vegetable soup, and I believe it. As against this

By NANCY FORD CONES
LOVELAND, O.

we may observe that none are so elegant, etherial, and lily nice as the dilletants. The habit of work, inherent in all who do things well, is not unlikely to extend broadly along the lines of every-day life: Idealized biography to the contrary notwithstanding.

As peculiarly interesting, be it told that the Dutch pictures were made in Ohio: That the backgrounds and accessories are real and in most cases untouched. I asked about a certain fireplace which figures in several prints I own and Mrs. Cones' reply is illuminating and best put here in her own words.

"Back of our house, tucked away in the hillside, is an old stone house. The former owner called it a 'tater house, it having been built many years ago for the purpose of storing sweet potatoes. We call it simply the stone house. The windows are small and deep, but numerous enough to furnish a good light. The walls are a natural gray. There is not much in it but a dark room, an old square piano, a spinning wheel, and an old chair or two. This house has furnished the setting for many studies, such as "Old Hymns," and others of a like nature. The old, time-worn fireplace, I love and so often use, is situated on a farm a few miles distant, owned by relatives. It is in an old outkitchen where the rougher of the housework of a farm is done. For generations it is here that the cider and apple butter have been made. This place is jokingly called Nancy's house, for when there I spend most of my time in it. I had a bad

By NANCY FORD CONES
LOVELAND, O.

day when the hired man with the best intention whitewashed fireplace and all. His excuse was that he was trying to tidy and snug it up for me, but I was a miserable woman till Mr. Cones solved the problem of restoration by tinting over with a dark gray. It has been guarded carefully ever since."

I should delight in writing a book

"OLD HYMNS"
BY NANCY FORD CONES, LOVELAND, O.

about a woman who travels miles and spends hours in an old stone house in order to give us pictures. You may feel that if you had the old house and such a fireplace you could enjoy doing likewise, but perhaps there is an odd corner of your own place that you haven't even discovered.

Should the reader, like the writer, have a desire to know with what tools Mrs. Cones works, let him be surprised, as I was surprised, to learn that her favorite lens is a rapid rectilinear. Not a high-priced anastigmatic, compound-shuttered affair: Not even a diffused focus glass. Just a simple R. R. such as we get with any old bellows camera we buy in the shops and works with a cap. It cost, the lady boasts humorously, six dollars in an 8 x 10 size. In her equipment are mentioned a Cook Portrait and a Cook Anastigmatic, but the cheapest glass seems the favorite. If fine lenses made fine pictures mine were masterpieces and Mrs. Cones like mine. The moral is obvious.

It is the great argument in proof of photography as a fine art that the equipment is of such little importance and the personality and skill of the worker so essential.

As to the particular personality that has created these pictures let the course of an average day in her life, her environments, tastes, and ideals, help us the more fully to enjoy her work. In reply to my question as to whether she followed photography as a business or has any special art training, Mrs. Cones says:

"I am, in the first place, a homemaker and thoroughly interested in my housekeeping and I am afraid, hopelessly practical. If you were to come to my house you should most likely find me cooking a meal or making another dress for my little girl. You know how fast these youngsters grow. However, if the weather conditions are right, I am liable to drop my work at any moment and with my camera, take to my usual haunts for picture making. But I learned housekeeping long before I owned a camera. No, I have never had any art training other than a love of reading, of pictures, and of the beautiful has given me. About fifteen

(1) "GOSSIP"
(2) "DOLLIE'S NEW DRESS"
(3) "FEEDING TIME"
(4) "THE TANGLED SKEIN'

BY NANCY FORD CONES, LOVELAND, O.

"BLESSING THE BREAD"
BY NANCY FORD CONES, LOVELAND, O.

years ago I came into possession of a 4 x 5 plate camera. My very first exposures were interiors and they turned out good. Then I took to making pictures of my friends and so drifted into studying the interesting characters in our village. From this time on became a series of adventures. I could scarcely wait from day to day to make new experiments with my camera."

Mr. Cones, it seems, was a professional photographer until he retired to manage the farm on which this happy family now lives. He is naturally proud of his wife's attainments and one can imagine them working together to put on paper some elusive quality the negative holds but is reluctant to give up. It was the stubbornness of some negatives that led the couple into the use of gum-bichromate. No available paper seemed to lend itself to these plates, yet they seemed too good to throw away, so gum was tried. Books on the subject were studied, material bought, and no doubt much paper and chemicals spoiled, but the prints were gotten and since then says Mrs. Cones, "This elusive but alluring medium has been our favorite and both of us have become very proficient in its use."

The pictures illustrating this article will show only within the limitation of reproduction the tonal qualities of the original prints. It is an essential factor in Mrs. Cones' distinction that the color, paper, and medium selected are in every case most wonderfully fitted to the subject. Not even metal plates and printer's ink can banish the spiritual element in her work—a gift that puts a soul into inanimate things and makes a doorway, or a chair, or a fireplace not merely picturesque but *human*.

Let us not slight the little model who figures so frequently in the best of these pictures. Little Margaret Cones is not only her mother's help in standing for her but beyond a doubt the source of much inspiration. Long may they work together and in distant years to come, let us hope the daughter may prove as gifted as the mother and give us pictures of a sweet old lady, making turn about fair play by using mother as the model.

"SONG OF THE LARK"

BY NANCY FORD CONES, LOVELAND, O.

"GRANDMOTHER'S SONG"
BY NANCY FORD CONES, LOVELAND, O.

KEEPING UP WITH YOUR ADVERTISING

BY C. P. M.

YOU'VE looked the field over, and begin to believe in practical advertising—newspapr advertising—*printer's ink!* You've decided how much of an appropriation you can make for the next six months or year, and have closed contract with the paper or papers you have elected to use.

Right here take this advice—it's been proven in all lines of business, before you run your first ad., CLEAN HOUSE! Yes, clean house; get into ship-shape; have nothing about the studio to offend the eye of the most fastidious. Remember, *first impressions are lasting in the eyes of customers*—the first glance "sets the pace" and establishes the precedent in their alert estimation.

Your first advertisements are, or should be, cordial invitations to visit your studio. You bid the public to pull the latchstring—to come in and see your good cheer in shape of artistic pictures, cozy, inviting rooms, spic and span clean.

Postponement of this initial duty is almost fatal to success, and if neglected will take months of persuasion to turn the tide your way again. Bear in mind that you have issued a special summons to friends, acquaintances, and the general public to see you at your best. Now, see that you *are* at your best—"decks cleaned," ready for inspection!

When you are asked to the wedding-feast, you expect everything to be in readiness. But what a disappointment sweeps your face if the bride and groom

appear in shabby clothes, the cake not even made, table set, or presents unpacked. You'll be polite enough to stay a few minutes, then go, and on your way home mentally and materially cut them off your list.

It matters not whether you're making photographs, selling pianos, or vending peanuts, you *must* be prepared for the crowd. Don't wait till people who have read your cordial, inviting ad. come flocking in to size you up, and you have to apologize for incomplete decorations, pictures not in place, and rooms untidy. The photographer who constantly postpones "fixing up," and is always apologizing with "No time to make new samples," "Too busy to keep clean," better go hide, and let some progressive man or woman squeeze the bulb and persuade the customers.

Speaking of women under the skylight, they're fast coming to the front, and in a few years you'll see scores more of studios conducted by women, progressive ones, too, holding trade and getting more. Women love and practise order and cleanliness—their bright, wholesome, inviting studios command respect and liberal patronage.

It has been wisely said that "an ad. is the star of the mercantile drama." Now, no star, however scintillating or resplendent, can hold an audience if the support is "rotten." Exactly so with an ad.; it may fairly glisten with enthusiasm over the work and wisdom of your studio, and the latter be a mess of mustly old samples, fussy furniture, with dust and grime skulking in the corners. Then your poor prima donna, your ad., is a dead fizzle, and in the patois of the gallery god, "your name is Dennis." Demise, rather, for you'll surely die a financial death from lack of patronage, and be buried in oblivion. Epitaph *apropos* would be, "He meant all right, but was too short-sighted, shiftless, lazy, and procrastinating to be progressive."

Moral.—Be up-to-date, not down in dirt.

However attractive an ad. may look and read, all the adjectives in the English tongue won't atone for poor goods, indifferent service, and an untidy studio.

But some lukewarm artist murmurs, "Oh! I hate to start in to advertise. Takes so much time and trouble to get ready, write the ads., and keep the samples changed." *Thunder*? Go jump in the lake—we'll pay for your funeral! If you haven't the energy, go to a gymnasium for a few fencing lessions and a course in boxing. 'Twill stir your sluggish blood and coax your languid liver into life.

Begin with yourself. Dress the best you can afford. Have stylish, sensible clothing for every-day wear. It's no economy to wear a six-dollar sleazy serge six days in the week, then creep into a forty-five-dollar diagonal on the seventh. You'll do more business, gain more friends, command more attention, hold your own, and make more money if you invest $30 or $45 in a bright, stylish business suit. You may be all taken up with "beautiful light effects;" heart and hand may idolize "fine negatives," and still drive away trade by an indifferent attire. Laying aside personal taste, it's a sound business investment, sure to win, if you devote a few dollars to well-fitting, stylish clothing, bright cravats, fresh linen, and shoes that *shine*. Days of eccentricity are over. The present is purely a business age, whether you relish it or not; and if you succeed, you must "do as Romans do," *advertise*, and live up to it!

I once visited a gallery in a small town. Its owner was a good photographer, and in earlier days was the oracle of art in that section. Even now he can light a head and build a negative that will give many a youngster in the craft the green eyes of envy. But, bless his soul, he's nearly "all in,'—pardon the phrase—that everlasting dressing-gown, slippers, plush cap, and Samsonian hirsuteness have pronounced his passé in the eyes and orders of a once-patronizing public. His former customers now go to the neighboring city for their portraits.

Where to begin your house-cleaning? *Anywhere* about the premises. Tackle the skylight-room first—lots of light there, and easier to see the sins of neglect. First, cut down those faded, old, coffee-colored, curtains. Put up fresh white ones in the skylight and at

sides. Treat the windows to a bath outside and in. Have the woodwork washed; repaint, paper, and varnish. Burn up the antiquated balustrade and gimcracks. Use solid furniture in your pictures. If you haven't suitable pieces, borrow or rent them from the furniture store. The genuine article composes easier and looks better in the portrait than one of those impossible papier-maché nightmares of the Renaissance. Rip off the dingy camera-cloth—a new one costs but a trifle, and will set you up 10 per cent. in the estimation of the next sitter. Paint and varnish the floor, that it may be washed and wiped each morning. Sure it's a trouble to do it, but it pays a big dividend. (If more photographers knew what a sinking fund there is in the despised mop-pail we'd hear less grumbling over "hard times!") Neglect the floor, and some unexpected time a lady comes in for a sitting in a train dress, and unconsciously wipes up your floor with her immaculate skirts. But only once—pictures or no pictures, she doesn't come again. Your advertisement said your studio was "clean and inviting," she proves to herself and friends by perhaps a ruined gown that your ad. was a lie, and "even to be asked into such a dirty den was an outrage!" That prince of picture makers —dear old Sir Joshua—had sense enough aside from his greed for gain to keep his studio "clean and in fit condition to receive his patrons and limn the lineaments of all the lovely ladies of the land."

All the rooms, reception, dressing, skylight, should have thorough attention every morning early, before customers appear; every corner presentable; every chair in place; every glass polished; every picture hung straight; every countenance cheerful—then *advertise*, and change your ads. every issue.

Too many pictures shown at once is another curse of many a might-be-money-making studio. Fewer pictures frequently changed is the way to win attention, patronage, and money.

Do well-appointed stores tumble out their whole stock in a bunch? Not a bit. "Few at a time changed often" is the rule for displaying fine goods in up-to-date shops.

When articles of worth, like laces and pictures, are displayed in avalanches—yards and yards of fabrics swinging in the air; yards and yards of pictures plastered here and there—they look cheap, and a sense of surfeit seizes you as you turn away from the "job-lot."

Does the diamond dealer exhibit an acre of brilliants, or the lapidary show a sprawling handful of gems for selection? No, only a few at a time, perhaps but one precious stone on a velvet square. How precious—how exclusive it looks! Shows up "splendid" in the customer's eyes and draws a generous check!

Show your pictures few at a time; have them choice, and change them often. The ignorant backwoodsman realizes that anything in the picture line hung on the wall demands more praise and commands more price.

Six or eight superb specimens, finely framed, hung on the wall demand more, while a bundle of panels tumbled on the table is apt to go begging for the price. Which is the more appetizing—rice pudding on dainty Haviland, or Waldorf-Astoria ice-cream served on a tin plate?

It's all right to make specimens from all good negatives and subjects; but when you carry in a handful to the reception-room don't forget to bring back some of the older ones to start the fire with.

Studios in fashionable sections should have no showcases. Let the people who sell biscuit and bonnets have the glass enclosures. Put your proudest prints in frames on the wall; don't consign your choicest creations to a casket!

"Something new" is the constant cry on all sides. Fresh goods, fresh news, *fresh advertising*; for advertising *is* news —*business news*—in every *woman's eye.* Women are the readers of advertisements, and do nine-tenths of all the retail buying.

You must work and work hard to keep up-to-date. No business succeeds without constant vigilance and hard work back of it, in front of it, on each side of it, and all through it!

It's just as necessary to advertise as to unlock your front door in the morning; more so as time advances.

The progressive photographer is too busy keeping up to the standard of excellent work—improving on it, and catering to the wants of his clients, to write ads., or learn how. Neither has he time. He realizes that even with natural taste for ad. writing it takes time and training to become proficient. With foresightedness he decides that it costs but a little to have his ads. written right, and wisely leaves that part of his business to someone whose practical experience and sympathies warrant wise wording and convincing arguments.

TASTE

BEAUTY is a human necessity. Taste is the faculty of discerning and reverencing it. Sooner or later, in individuals, communities, and nations, sordid monotony breeds discontent and the human soul gropes for an uplifting influence whereby it may mount to higher things.

There are some who have been more fortunate than their fellows. They have gathered from the rich heritage of the past, and they have watched the vines grow and the flowers bloom and have listened to the singing of the birds and to the melody in forest and in stream. They have learned Nature's universal laws of order; perfect fitness, unity, rhythm, balance, and harmony. We say they are people with taste, and call them "cultured," but others there are, a much larger number, unfortunately, who, while protesting against the ugly and sterile, have, in their search for beauty, been misled by the lure of the "colored comic (?)" the cheap show, and have become the victims of the cheap, gaudy and usually unsatisfactory articles. We say they are without taste, and call them "uncultivated."

The opinion seems to be held by some that the thing we call taste is an indefinable, intangible thing, an affectation of the dilettante, or the exclusive possession of the artist. As we read the story of the ages, we are again and again reminded that certain qualities which men have woven, and carved, and infused into their works have lived because they have satisfied human demands. These essential qualities of taste may be taught to the young, expressed in their work, and so form the fundamental equipment for all tests and judgments.

The taste faculty, like other faculties, is developed only through continued exercise, and repeated problems requiring a choice between the good and the bad.

Every time we make a selection for ourselves, our home, or our friends, we are revealing our true selves, and putting ourselves on record as possessing taste or lacking it.

A few artists or dilettantes do not make a community artistic. This precious sense to discern, heart to love, and reverence for all beauty, order, and goodness must not be left to the few, but cultivated in all the children of all the people.

In the accomplishment of today lies the hope of tomorrow—a prophecy of persons more charming, workmanship more valuable, work more joyous, homes, streets, and cities more beautiful, and lives more noble. — *The Graphic Arts.*

PHOTOGRAPHIC CHRISTMAS CARDS

BY ERNEST W. JACKSON

THERE is a great charm in making one's own Christmas cards, and it seems only natural the photographer, whether amateur or professional, should utilize his negatives to produce a greeting card at once novel and pretty, of his own devising. Some photographers are satisfied to purchase the so-called Christmas mounts decorated with embossed and colored designs, and simply paste on (or slip in) their pictures; but for those who wish to send to their friends something a little out of the common run, this procedure savors too much of the ordinary Christmas card of the shops, which can be bought by all and sundry.

No great difficulty may be anticipated with regard to the home manufacture of Christmas cards. Simplicity, daintiness, and some decorative value are chiefly

to be aimed at. The range of subjects is a wide one. Some will choose a portrait, a very appropriate subject, since it has an interest of its own apart from the good wishes expressed in the "motto." Others may prefer to be represented by their best picture of the year, regardless of any special suitability of subject. Snow and hoar-frost scenes are obviously very seasonable, and as a rule a local view, taken at any period of the year, will be found attractive and interesting. Studies of still life in the form of winter fruits, sprays of holly and mistletoe or viands and table accessories suggestive of Christmas "cheer" afford

much scope for effective grouping. Flowers, too, are always satisfactory from a decorative point of view. Photographs of Christmas roses, of course, are particularly suitable for Christmas cards.

If we are able to draw as well as photograph, the scope as regards originality becomes wider. The photographic pictures may be combined with borders or other decorative work in pen and ink, wash, or any other medium preferred. But this is not absolutely necessary, as very pretty and novel effects may be obtained by a combination of two or more photographs. There is, for instance, the double card where one looks through an opening in the top fold and sees a picture underneath. This may be carried out very effectively as a home production by

combining a decorative front design, say, of flowers, ferns or grasses with a landscape or seascape. The opening in the top photograph may be cut square or in some fanciful way, and if well carried out the effect really is to produce two pictures, one seen through the top fold and another when the card is fully opened. The attractiveness of the design will be greatly enhanced if the top and lower photographs are of different tints, say a sepia-tinted picture (easily obtained by using self-toning P. O. P.) in conjunction with a black and white gaslight, bromide, or platinum print.

A touch of humor in a Christmas card is a very desirable quality, and can be obtained by purchasing some of the very funny objects which are to be bought at the shops where small fancy goods are sold. The curiously shaped dogs and cats one sees, for instance, have a touch of the bizarre about them and are very amusing. These may be photographed either separately or in combination with the quaint human figures also to be obtained, so as to make up an episode that would be very entertaining and amusing to the younger generation of photographers. Such figures are by no means expensive.

Those who have a taste for coloring may exercise their skill in this direction by tinting their photographs. When done with discretion, taking care not to overdo the coloring, the results are very attractive. Matt surface papers, such as platinotype or carbon-velox, "take" the colors best. Ordinary water-colors may be used, but there are several kinds of special colors sold by the photographic dealers which are to be preferred. These colors being transparent, it is only necessary to wash in what artists term the "local color" as the shading is already provided by the photographic print itself.

The introduction of hand-drawn "motto" work of course necessitates some ability in lettering, but by a little ingenuity this difficulty may easily be overcome. For instance, mottoes may be cut out from old commercial Christmas cards, and if neatly trimmed and tastefully "placed" on to our own designs the effect will usually be satisfactory. If the production is a combination design, say a photograph with a border in pen and ink and a motto, we can simplify and improve matters very considerably by rephotographing the whole to any desired size, then, from the negative so obtained, any number of copies may be printed off as required. A slow plate should be used and endeavor made to secure a bright sparkling negative that will not only give the clearness of the pen-and-ink work, but also retain faithfully the half-tones of the photograph.

The examples of photographic Christmas cards here given will, we hope, serve to incite many who have not hitherto applied their photography to the purpose, to give to the little messages of good-will which they send at the close of the year, just that personal touch and interest which is given by the fact that they are the product of the sender himself, and exemplify his taste and pastimes.—*Penrose's Annual.*

THERE are two kinds of discontent in this world—the discontent that works and the discontent that wrings its hands. The first gets what it wants and the second loses what it has. There's no cure for the first but success; and there's no cure at all for the second.—*George Horace Lorimer.*

By MAY L. SMITH

BINGHAMTON, N. Y.

OF THE WOMEN'S FEDERATION, P. A. OF A.

By THE GERHARD SISTERS

ST. LOUIS, MO.

OF THE WOMEN'S FEDERATION, P. A. OF A.

DAILY PRACTICE IN COMMERCIAL PHOTOGRAPHY

BY A. J. JARMAN

PART II

WOODEN trays, as mentioned in the last article, can be made by any carpenter. The sides and ends should be made to slope about one inch all around, so that the top of the tray would be two inches greater in the width and the same in the length, than the bottom. The sizes well suited for all ordinary work are 2 feet by 1 foot 6 inches inside measurement, the oil-cloth or rubber-sheeting may be held to the woodwork and the bottom by a stiff coating of a quick-drying paint, this at the same time will make the insides of the woodwork water-proof. Any size may be made in this way possessing a lasting quality that no other tray can equal, being suited for washing, developing, fixing or toning purposes, resisting the hardest wear and tear, the only thing to be attended to is to be sure and wash each tray well with several swillings and wipings with a rag, mop or cloth after each operation, and to keep each tray for its particular purpose.

Whenever small objects are to be photographed, such as the inner mechanism of a clock or watch, or hardware, such as padlocks, keys and lock mechanism, coins or medals, they must be laid upon a low-down flat table, one that has the legs cut down to suit, and a sheet of gray cardboard laid upon it, the articles placed upon this and arranged to suit, while the camera must be fitted upon a sliding board and stand so that the camera and lens become inverted, the lens pointing to the articles, and made to focus by sliding the camera up or down and fixing it at the right place by means of a back grip screw. By this means the articles may be so illuminated as to make one and all stand up in bold relief or side-shaded to taste.

Another method of holding articles in position to be photographed is to use a lump of beeswax, and gouge a small piece of this with the thumb nail, then press the wax upon the article, again pressing the article upon a suitable background, such as a stout piece of gray board, this may then be placed vertically, the wax will hold many articles of considerable weight by this means. Medals and coins for example may be held with beeswax for any length of time during photographing, the wax being wiped off by the use of a little alcohol, upon a piece of Canton cotton, this will cause no injury to the medal, but leave it clean and brilliant. The photographing of glassware is best accomplished with a top light, and the use of black velvet for the background, or where a white ground must be used, large sheets of white cardboard may be used. When lighting articles of this class by a top light, a large sheet of tissue must be used at such a height above the objects and the camera, so that the light becomes screened or diffused, thus preventing harsh and sharp high lights upon the articles.

The best paper to use for this purpose or for covering printing frames, to admit of stumping in with color, is that known as Hulp Mill, parchment C, procurable of Devoe & Reynolds, at the corner of Fulton and William Streets, New York City. It is forty inches wide and about twelve yards long, costing one dollar. Wet colors of any kind may be painted upon this paper with no fear of splitting or injury, in fact it is stronger when wet than when dry, thus differing from all other tissue papers, and being in a roll any size may be cut to suit any purpose.

Another point in commercial photography that must be attended to is the

preparing of stretching frames, for the stretching of muslin or canvas, where prints have to be mounted upon a pliable base, to be bound in album form. Many prints, from 5 x 7 to 11 x 14, have to be so mounted. These stretchers are made generally nine feet long and three feet wide, with wooden strips, planed, three inches wide and one inch thick, held at the corners on the inside with angle pieces of wood, while one inch down from the top a series of nails are driven from the inside, so that the spike ends project on the outside. The nails best suited for this work are known as stretcher nails; they are made of Russian non-rustable iron. The mounting of the prints is carried out as follows: A piece of fine-grained bleached muslin is cut so as to be a few inches longer and wider than the stretcher when one end of the muslin or calico is hitched upon the nail-points at one end, then pulled tight from the opposite end, and hitched upon the points, always commencing at the middle. This done, one side is now hitched on to the points, and finally the stretching is done by a straining pull upon the muslin, and pressed upon the points so as to present the appearance of a tightened drum-head. If the stretch is not sufficient, now is the time to complete it by rehitching either the ends or sides. The prints now must be carefully trimmed, well wetted, and so laid upon each other face down in a large clean tray that a quarter of an inch is visible at the end and side. This will enable each one to be easily picked up after pasting. A well-made paste must be used; one that has been squeezed through a double folding of wet cheesecloth.

The prints are now well pasted all over the backs and the muslin meantime must be prepared by being wetted all over with a large lump of absorbent cotton, that has been well wetted and partially squeezed out. This is rubbed over the surface of the muslin so as to produce an even and uniform wetting, not too wet, but just enough to penetrate the material without leaving an excess upon the surface. The prints are now lifted from the pasting tray and carefully adjusted one at a time, back down, upon the wetted muslin. They are then carefully and evenly rubbed all over with a lump of wet absorbent cotton, well wrung out, so that each print lies flat with no signs of air bubbles, the whole stretcher being evenly covered. If the edges of the prints show a tendency to lift, as they always do if the paper is aristo platino or in fact any collodion paper, they may be easily set down by rubbing the thumb nail up and down lightly along the outer edges. It happens more often than not that prints mounted for a show album are mounted upon both sides of the muslin. In this case the prints are numbered with lead pencil, the stretcher with its first batch of prints being mounted is reversed, and the prints that are to correspond are mounted by standing the stretcher on edge. By this means every print can be made to correspond, and placed in position accurately. In addition to mounting the prints for an album, strips of paper must be pasted at the ends of each print, allowing a quarter of an inch of space, canvas or muslin, so as to form a hinge when bound in the album. These strips are usually one and a half inches wide and pasted upon each side. When all are mounted the stretcher is placed on end to dry, usually for the night, when the next morning the muslin will be so tight that it will ring with a tap of the finger. The prints are now cut by means of a sharp penknife, slitting the muslin, when each print can be trimmed to the right size.

(*To be continued*)

BACKGROUND PAINTING

BY J. L. SULLIVAN

HAVING been a professional background painter for something over thirty years, whose work is in probably nearly all the high-class studios throughout the world, you can imagine the amusement I have derived from the various articles purporting to tell "How to Paint a Background," which appear from time to time in the various photographic publications. It certainly does seem as though each writer went out of his way to make his directions impossible of successful performance to even a professional background painter, for I have yet to see any of these so-called instructions by which even I, a life-long background painter, could paint even a poor ground.

"Can I paint a background?" the country photographer asks. Yes, if he is an artist with the brush, and has practise enough to get a "handling" or technique. It takes about a year's time to acquire a handling. A year's daily practise will give him skill enough to paint cheap stock-house headgrounds such as sell for $1.50 each, and he has yet to master the handling of his color on a large scale as is necessary to paint the large scenic grounds. He must acquire speed in "laying in" the colors so that none of them will have set or dried out before he has completely covered the canvas on which he is working. He must be a skilled draftsman with the brush. In fact his skill must be of such a high order that every brush mark will be just what it should be, for there is little or no possibility of changing the greater part of the "lay in" after it has set; that is, after the color loses it, liquid state and has begun to sink into the canvas, and this happens quickly.

Unless one is so situated that it is impossible to procure the work of a professional, it is a waste of time to attempt painting your own grounds, as today really good grounds may be obtained in size 8 x 8 feet with a 7 feet oil extension floor-cloth for from $15.00 to $50.00. The price depending wholly upon the skill of the artist and the time it takes him to paint the ground. The minimum price named is about what the brushes and paint will cost one to acquire the proper tools to work with. And if you are to succeed in your efforts to paint you must have these for doing one, or a thousand grounds. When you get them together you will still be "deep in the woods," for the brushes are not "broken in" yet. The professional "breaks in" his new brushes by using them to paint plain grounds until they are worn down about an inch from their original length. They are then in a condition to draw with.

With so much by the way of preface, and with the advice to buy rather than try to make your own grounds, because you will find it cheaper and much more satisfactory in the end, I will now proceed to tell how I paint a high-class background. There is only one secret about background painting that I know of and that secret is the secret possessed by every real artist with the brush: SKILL.

I take it for granted that the one ambitious to try his hand at background painting has a full knowledge of the of the actinic values of the color he is about to use, so shall omit that part—very important part of every first-class painter's equipment.

Tools and Materials

You will require the following brushes *set in cement:*

Two 4-inch brushes. Best long stock Russian white bristles.

Two 3-inch wall brushes. Best long stock Russian white bristle.

Four 2-inch chisle brushes. Best short stock Russian white bristle.

Two No. 6 Artist's bristle, round black polished handles.

Two No. 6 Artist's bristle, flat black polished handles.

(These may be obtained from Messrs. Gerts, Lombard & Co., Chicago, Ill., and that is the only place you can get them.)

One straight edge about five feet long by one and a half inches wide. Its use is obvious.

Nine receptacles for mixing the color in and for "dropping" the glue in, and washing out your brushes while painting.

A canvas of the required size on which to paint. 11-4 Peperell brown (unbleached) sheeting is the best material ever discovered for background painting. You can obtain this from any drygoods store in the large cities. It is eight feet wide.

Color

25 pounds of English clifstone Paris white.

15 pounds of English ivory drop black.

5 pounds of American ochre.

5 pounds of American raw umber.

5 pounds of American scene painters' gelatin.

Mixing the Color

Arrange six of the color receptacles in a row thus:

0	0	0	0	0	0
White	No. 1	No. 2	WC.	No. 3	No. 4

You don't use any pure black, so no pail is provided for it.

Fill the white pail about two-thirds full of water then drop *slowly* into this enough white to absorb nearly all the water. You should, upon stirring it, have a thick paste-like substance.

In the No. 4 pail follow the same procedure except substituting ivory drop black for the white. In two of the remaining pails provided for above drop your raw umber and ochre; a pail for each.

In the remaining pail you will place enough of the gelatin to fill it within an inch of the top and then pour in enough water to cover the gelatin and just about to fill the pail. Allow this to stand at least six hours so that the gelatin will be thoroughly soaked and softened to a point where it will melt up readily when placed upon the stove. It is best to surround it with a water jacket by placing the gelatin pail in another and larger pail containing water. This will keep the gelatin from burning.

When your gelatin is melted put enough in each of the colors you have "dropped" to properly size them. Test them on a piece of paper, allowing the color you apply to the paper to dry, when if it does not rub off it is sized. CARE MUST BE TAKEN NOT TO GET IN TOO MUCH GELATIN, or your ground will cockle and crack and be useless. So put in a little of the gelatin at a time until you have the proper amount. A pint will size about a gallon of the paste-like white and from one to two pints of the melted gelatin will be required for the black, the ochre, and the raw umber.

We will now assume that your colors are properly sized and are of the consistency of very thick cream.

Into the No. 4 pail containing the black put a small amount of the raw umber—just enough to take the bluish cast off it and make a rich, warm black. This tint is what is known as red-black to the background painters.

In the WC pail place enough of the pure white and the red black (equal parts of each) to about half fill the pail and you have untoned wall color (WC).

Take one-third WC and two-thirds red-black and place them in the No. 3 pail, and you have untoned tint No. 3.

Of the white that remains take five parts and just a little of the WC and place them in the No. 1 pail and you have untoned tint No. 1.

Take equal parts of the tints No. 1 and WC and place them in the No. 2 pail and you have untoned tint No. 2.

You will now have to drop another pail of white as you have used all that you first prepared to mix the intermediate tints, Nos. 1, 2, WC, 3, and 4. Proceed as directed above.

To tone the colors you will use the

ochre and the raw umber; put a little of each in all the tints except the red-black, stirring them well so that the toner will mix thoroughly with the rest of the color in the pails. The amount you will use of these toners (ochre and raw umber) will depend on what tone you desire your finished ground to be. If you want a sepia tone omit all ochre and use the umber, but if you want a medium warm tone use both ochre and the raw umber. Now your eye will tell you better than any description or formulæ that I can give just the proper amounts. You now have six tints ranging from white to red-black. Remember that the tints look much darker in the pails and on the canvas than they will look when dried out. You must allow for this or you will probably paint a much lighter ground than you intended. Try them out (the tints) on a piece of paper by allowing them to dry, when you get an exact knowledge of their various strengths, and relation to each other.

If your color chills (jells), warm it on the stove and if it is still too thick to flow well from the brushes thin it with a size made from one part gelatin and seven parts water. Be careful not to add too much or your color will become so thin that it will "run" on the canvas, and you will be unable to have your drawing with the brushes stay where you put it.

Stretch your canvas (sheeting is called canvas by background painters), by tacking the selvage edges first, *i. e.*, after you have tacked each corner. Place the tacks about five or six inches apart. Stretch the canvas until it is taut and all creases and wrinkles have disappeared.

You are now ready to "draw in" the design you are about to paint. Do this with soft artist's charcoal. Sketch in the design carefully, and if you find any oil spots on the canvas cut them by applying benzine and brushing them thoroughly with one of the No. 6 brushes. The oil will look yellow and must so be treated or it will stain the paint when it dries.

If you desire a ground of light tint you will use tint No. 1 and white for the broad masses, with tint No. 2 for the delicate clouding, and here and there in the deeper shadows a touch of WC. The colors are applied directly to the canvas without other preparation than is given above for cutting the oil stains with benzine.

Half-tones are obtained by mixing the different colors as you apply them to the canvas, and by blending them with the brushes.

Use the large brushes for laying on the body color and blending. The artists' brushes (No. 6) are used to put in the "cut up" or detail.

To obtain a medium ground use tints No. 2, WC, and No. 3 for the broad masses and No. 1 and white for the high contrasts in windows, doors, etc. No. 4 (red-black) is used for the dark accents of detail, and is rarely used in the "lay in" except in very dark grounds, when it is used where you would use tint No. 3 in painting a medium tint ground.

Choose a simple design for your first effort.

Be careful not to allow the color to dry or "set" anywhere, except on the edge of a doorway, window, or prominent curtain.

Lay in the centre of the ground first, then the sides. If the color at the sides of the centre has set or dried, wet the edges with clean water and you will be able to blend in the color sufficiently at the point of union.

After you have laid in the whole ground, or such parts of it as seem advisable, your experience and skill as an artist will suggest putting in as much of the detail as possible. Unless you are experienced this had better be left until the whole ground is thoroughly dry, when you can do it leisurely. This is done with the No. 6 brushes of your equipment.

There is little else that I can tell that would prove other than confusing, so if you will practise enough, and have the proper artistic skill, you will, by following the above directions, be able to produce a first-class background in time.

BUT, don't forget about the skill, *real artistic skill.*

PERMANENT PRINTS

BY DAVID BACHRACH

I WILL not apologize for appearing again in the columns of WILSON'S after so many years, but it is not because I have lost interest in the art of photography, as I am still somewhat active in the profession, though the younger generation has displaced us largely, and, in most cases, justly.

As the technical part of the business, in which I was somewhat of an adept, has largely been made secondary to the artistic element, the reason of my absence is made clear to the older readers who remember me, but an article in the last number by Mr. A. J. Jarman, which is an excellent one in many respects, has impelled me to write this supplementary effort. I am fully aware that a print on the old time albuminized paper, thoroughly toned with gold, fixed completely in fresh hypo solution, and thoroughly washed clear of the latter, might be called permanent, and we have many examples to prove it, but alas we have many more examples to cast a strong doubt on this conclusion! There are too many "ifs" in the matter.

I would call the attention of photographers to the fundamental difference in the atomic structure of any P. O. P. print in the silver process to that of the modern developed print, and particularly if developed with ferrous oxalate. The former is an organic compound of silver, and the prints are composed of a most attenuated layer of the same. Even when the entire compound has been altered by the action of chloride of gold or the platinum salts, a very weak solution of cyanide of potassium will completely obliterate the print in a short time. This shows the elemental weakness of the print to withstand destructive elements.

Now let us see the structure of the developed silver print. It is composed of a much larger body of reduced silver much more closely representing the pure metallic form, which the action of sulphur compounds render more stable, while the P. O. P. prints are rendered less so by the same elements. I am not speaking only from theory, but from long experience and careful experiments. When I speak of permanence it is of the print itself, not of its support or encloclosure, which may be discolored by the incomplete elimination of the sensitive salts left in the print or, in other words, imperfect fixation, which is so easily avoided as to make such a fault inexcusable. Even the most permanent of all prints, those on the Willis and Clements' platinum papers, frequently appear yellow and brownish in the whites from imperfect elimination of the iron salts, a fault very easily avoided.

When it comes to mention the relative permanence, so far as the body of the image itself is concerned, I place platinum first, carbon next, and developed silver prints a close third, in fact under any normal conditions equal in permanence to the others; and especially so when toned to the sepia by the sulphide process, of which the hypo-alum so far appears to be the most reliable. It may be asked why I place carbon second to platinum. It is because I have seen so many cases of the carbon prints pealing and cracking in those portions where the deposit is heavy—in the shadows—especially the single transfers and those having a hard support, such as glass and celluloid; and warm or hot water will often destroy one of them, which has no effect on the other prints mentioned.

From long observation of the prints and tests under the most severe conditions, I have come to the conclusion that, under all ordinary conditions, developed prints on bromide paper or of the type of the Artura and Cyko brand toned to the sepia with the hypo-alum bath and thoroughly fixed and washed,

show the least change with time of any prints except perfect carbons. And the state of complete fixation is so easily attained that no one should fail in it.

The red chalk effects obtained by toning these sepia prints in the solution of gold used in that process makes the prints still more indestructible, as the red deposit formed by this reaction is of the most indestructible kind, the deposit of gold being far heavier than that formed by toning the ordinary P. O. P. prints.

In conclusion, I would remind photographers of the fact, that the permanence of negatives intensified by the mercury process may be assured by a final immersion in a solution of sulphate of iron, which changes the image back to the near-metallic condition. I have been in the business since 1861, as a small boy then, and I have found the actual business and money value of permanence in prints in its effect upon the business and reputation of the photographer.

THE AIR BRUSH AND ITS USE

BY W. THOMAS

The Air Brush—What is It

A SMALL tube, in size and appearance not unlike a thick pencil, hollow, and pointed at one end, through which liquid color is blown in a fine spray.

A small lever, worked by pressure of the forefinger, regulates flow of compressed air, while the aperture through which color is driven is opened out or closed down by means of the same lever.

In this way complete control, both over the volume of color passed and the rate at which it is driven, is exercised. Seemingly complicated, in practice it is quite simple, and, after a few trials, worked mechanically.

Since first introduced, it has undergone several improvements in structure, and also a lowering in price—a comfort to those who have to pay before being in a position to use it. There also have been alterations devised in the means adopted for charging the pump with air at the necessary compression. But these matters may be left to the printed instructions issued, which are quite clear, easily understood and followed. Half an hour's instruction with the air brush is sufficient to give any beginner a start.

Red Rubber Tubes Best

The rubber tubing used to connect the brush and air tank needs some care, or after a time air escapes through the defective parts, instead of coming up and doing its work of driving the spray of color.

It is cheaper in the end to buy the best red rubber tubing—certainly for the larger-sized piping, for, being less brittle, it continues in good workable condition much longer.

Keeping the Air Brush Clean

Whatever color the print may be, your first concern is to see that an ample supply of liquid is made up, to last for all the work in hand, it being found almost impossible to mix a second lot of color, other than black, of exactly the same tint as the first. In the next place, make quite certain the color is completely dissolved, for any particle of solid matter will wedge itself in the small opening of the brush, causing trouble immediately, and may put a stop to work altogether for a time.

When such a misfortune happens, and seems obstinate, plunge the front of the brush for a few moments into hot water, then charge it with water

instead of color, and drive the air through at full pressure. This generally proves effective.

With care, there should be no need for curing troubles, which only arise as the direct result of carelessness.

The Color to Use

If it were not for doubts as to their lasting qualities, nothing would be better than the aniline dyes; being perfectly fluid, without the least trace of solid deposit, they flow freely and cause no trouble through blocking up the fine opening of brush nozzle. But with care in mixing, no trouble need arise through using the fine-ground, moist water-colors sold by artists' color dealers, which may be obtained in any shade or color, and, when of the best quality, are beautifully ground and dissolve readily in water.

For those who only use the air brush at odd times, nothing better than these tubes of artists' water-colors can be desired.

For working up black-and-white prints, if they are really black, then lamp or ivory black color will match perfectly.

For sepia prints, use a mixture of burnt sienna and black, adding less black the warmer the color your print may happen to be.

Matching the Color

Before commencing to work, it is better to test your color and find whether it matches that of the photograph to be treated. If it is simply a black print, there is merely the question whether it is a cold or warm black; if it be the latter, and your liquid black appears too cold, the slightest touch of red or burnt sienna added to your black will warm it up sufficiently.

Where you are dealing with a rich, warm, sepia-toned print, first mix in water some burnt sienna, then cool it gradually down by adding black until it matches the color of print; to test this, you smudge from time to time a little of the mixed color onto clean paper (either white or cream-tones, just as your photograph happens to be on white or tinted paper), *then dry the patch of test color*—for color alters in appearance when dry.

When testing your color, *do it side by side with the lighter shades of your photograph*, for this is where any difference of tint most readily show itself.

The Print

Any photograph, of whatever kind, color, or character, is capable of being worked up by means of the air brush, but when it is known before making the print that it is to be finished by spraying, then it is better to make it strong and inclining towards hardness—that is, build up the shadow parts to full intensity, but keep the lights clean and only just indicated.

A print of the kind known as chalky is really what is wanted. It may not look pretty, if you are in the habit of getting full gradation in prints by simple exposure and development, but the soft, hazy, atmospheric effect is very simply and rapidly put in, if the print is of a strong, rugged type to commence with.

Portraits and Backgrounds

There is not the slightest difficulty in producing either the finest of pencil lines or the broadest of shades with the air brush. Where fine detail work is needed, and thin, delicate lines are to be followed, you close down the nozzle (like stopping down your lens), pump air into the receiver to full strength, then work the brush quite close to your print; but keep the brush constantly moving, because the closer to the print you work, the greater deposit of color naturally takes place, the result being that, any stoppage taking place, a darker patch of color is laid, and trouble follows. The safe plan is to go over all parts of the print several times, rather than attempting to obtain a full-strength tint right away.

After working over your figure or portrait for some time, and having brought it *almost* to completion, it may be well to attend to the background, because any alteration in the surroundings instantly has its effect on the

figure; and so it is advisable to leave over the last few touches of work until the background is completed, and its effect by contrast may be noted, then whatever strikes one as being required to finish off the subject can be done without risk of carrying it too far.

Enlarged Negatives

This aerographing proves just as useful for working up of large transparencies or negatives as for simple bromide prints, and much the same mode or proceeding is adopted. Skies, when any are there, may be strengthened in part, or, where required, softened down. When skies are lacking, then they are *created*. Suitable forms to fit the bald-headed landscape are decided upon, then boldly sprayed in, and, if done with knowledge and skill, they may not be photographic skies, but something better than most samples one sometimes sees when printing is adopted.

When a large print has been completed it is necessary to look it carefully over and see if at any point it would assist the effect by introducing a spot or two of sharp, clean, sparkling lights. If so, they may be made by taking out with a sharp wedge of hard rubber; while any shadow which seems to have been strengthened too much may be gently rubbed down by the same means—rubber. *But beware of overdoing it.*

Fixing the Print

It is not necessary, but if likely to receive much handling—say while in the hands of block makers—then it is certainly advisable to fix the air-brush work, and this is best done by spraying the print all over with shellac fixative, which may be bought from the artists' colorman; or make it yourself, thus:

In a wide-mouthed bottle put 2 oz. of best white shellac, and pour over it 14 oz. of methylated spirit. Cork it up, and leave for a day or two, giving an occasional shake up; then pour off the clear liquid, and you have a splendid fixative either for charcoal, pastel, or air-brush work. To use this, you blow through a spray producer (the kind of thing used to blow perfume about). Standing well back from your photograph, blow the fine spray cloud of fixative evenly all over the print. Don't attempt to overdo it at first, or it may collect in patches, then run, and prove difficult to get rid of the shiny appearance when dry.

By spraying thinly two or three times, the print will dry without gloss and be perfectly fixed, and safe against future injury from rubbing or contact with rough matter.

In aerograph work, keep the brush perfectly clean, free from dust and rust; see the color used is really liquid color; then everything will run quite smoothly, so far as they are concerned. For the rest, it is mainly a matter of care and patience in working, building up the effect gradually, rather than attempting to force matters too quickly. Properly used, these little implements are among the wonder-workers of modern times.—*The Amateur Photographer.*

ANY man is wealthy who has good health, a happy home life, a business or profession in which he is interested and successful, a passion for growth and the ambition to be of service to his fellow-man. With these he has all he needs, if not all he wants, and he could not get any more out of life if he had a million dollars.—*Arthur Fischer.*

GOD bless the man with a scheme, an idea. It may be visionary, but in any case it certainly must be better than resting all the time.—*Leslie M. Shaw.*

THE question is not, Will men honor you for your work? but, Does your work honor you? Your concern is not only to create profits for yourself but to make that which will profit many besides yourself. — *Ozora S. Davis.*

By H. D. WILLIAR

BALTIMORE, MD.

THE NEW ENGLAND CONVENTION AT BOSTON

BY OUR SPECIAL REPRESENTATIVE

THE recent meeting of the New England Association was one of the most successful gatherings of photographers that has been held the past year. This society has been looked upon lately as a dying organization, but we found it very much alive. The attendance was said to be far ahead of either of the last two years, which was remarkable considering the general business depression and the lateness of the date.

The return to Coplay Hall proved to be a very successful move. It was large enough to accommodate the manufacturers' display and provide a meeting and lecture room for members without conflicting in any way with the manufacturers' display. There was a feeling of sociability pervading the whole place that contributed much to the success of the convention. We noticed, on all three days, that by ten o'clock in the morning, the manufacturers were busily engaged with numerous photographers and explaining the advantages of their wares.

There were many demonstrators of print making, and some artificial lighting systems that attracted the attention of all the members.

The exhibition of photographs by members was larger than usual, with here and there a very fine print of good composition and finely rendered execution. As in most of the recent conventions, a great proportion of the tones were brown and sepia, but in the landscape class we were treated to some beautiful gray prints that were remarkable for their beauty. The competition in this class was so close that the judges found some difficulty in making a final decision. Prize cups were awarded for the best three prints by one member, and the classes were divided by States, Massachusetts making the best showing.

At this exhibit we notice the same condition that often exists at State society meetings. The members exhibited three prints each, and in many cases there would be one or two very good prints, while the third would often be a poor example of photography. In talking over the prints with exhibitors on the second and third day, the invariable excuse was that they were compelled to grab up anything they could lay their hands on, at the last minute, which allowed no time for a reprint to be made. Mr. Phillips commented on this at the closing session and suggested a remedy. He said: "If every New England photographer would start now, and select from his proofs the best things, make a print for record, and lay it away in a convenient drawer, he would have a collection by the time of the next convention from which he could select three very fine examples of his work, and by so doing could help to raise the standard of the 1915 show, 'way above the present average." This is undoubtedly true, and furnishes a text for the men who are planning future state meetings.

We do not believe that the exhibitions of photographs, State and National, begin to show the actual ability of the exhibitors. In nearly every case, when prizes were awarded at the New England convention, the men who received the awards showed that they had used care and judgment in the selection of prints and frames, and many of those who failed to take prizes showed marked ability, along with gross carelessness, and we believe that this carelessness was largely due to a lack of preparation.

The permanent exhibit from the National Association and the "Abel" collection, gave us a fine line of master photographs, worthy of individual study. Mr. Abel's prints have been gathered from men and women of ability all over the country, and they show a wonderful range of inspired thought and technique,

which serves as an object lesson to any section meeting. This is a splendid feature, and Mr. Abel should be encouraged to continue it for another year at least.

The collection of Duhrkoop prints was as interesting as ever, but it is hard for the majority of photographers to see the value of making so many ugly people look uglier. The artistic conception is fine and the technical work good, but one cannot help wondering how much more beautiful the women would be coming from the cameras of our best men on this side of the water.

National President-elect, Will H. Towles, delivered his lecture, on the value of light, to an interested audience. This lecture is one of the most instructive features that has been introduced at recent conventions. It is fully illustrated by the use of the lantern, and Mr. Towles' explanation make every move so plain that it is understandable to all.

National Secretary Hoffman talked on coöperation, and showed the members that this was the big movement for increased business all over the country. Coöperation means a broadening of the mental view; means increased mental capacity; means greater all 'round ability.

There was a talk by Ryland W. Phillips, entitled, "The Great Mistake and Its Remedy," The mistake proved to be the ticket scheme, and Mr. Phillips pointed out that it had been a great factor in cheapening the standard of photography and eventually ruining the business of many photographers. He then suggested the many ways of running a healthy establishment, building up a solid foundation for future business, and gave examples of practical methods which had been used to this end.

The society unanimously accepted the amalgamation scheme, and although the section now covered by it is the same as it will be under the new eight-section plan, they agreed that National coöperation with the Photographers' Association of America would be a fine thing for all, and heartily endorsed the plan.

There was a short experience meeting, at which the members discussed various phases of business and gave practical remedies for troubles. Mr. Harry Fell and Mr. J. C. Abel gave Mr. Towles great assistance in conducting this discussion.

The officers of the New England Society are to be congratulated on a very successful convention, not the least important feature of which was a friendly fellowship on the part of the many members gathered in cozy little Coplay Hall, and we hope that by next year they can gather double the members to enjoy and profit by the many good things served up for their benefit.

The new officers are: President, J. P. Haley, Bridgeport, Connecticut; First Vice-President, Orrin Champlain, Boston, Massachusetts; Second Vice-President, John H. Garo, Boston, Massachusetts; Treasurer, W. H. Partridge, Boston, Massachusetts; Secretary, Geo. H. Hastings, Newtonville, Massachusetts. The State Vice-Presidents are: For Maine, L. G. Gerry, Sanford; for New Hampshire, Claude L. Powers, Claremont; for Vermont, A. D. Wyatt, Brattleboro; for Massachusetts, D. J. Bordeaux, Springfield; for Rhode Island, John Sabine, Providence; for Connecticut, Don A. Houghton, Norwich; for the Maritime Provinces, J. E. Sponagle, Truro, Nova Scotia.

PHOTOGRAPHY IN GREAT BRITAIN

A Review of the Month from Our Own Correspondent

London, October, 1914.

Following close upon the exhibition of the Royal Photographie Society is that of the London Salon of Photography, which drew back its curtain early last month. Despite the temporary abandonment of the fine arts, the all-round success of the Salon is significant from the point of patronage. The assigning of the proceeds to the National Relief Fund stimulated public interest, but also the the entries

are more numerous than usual, the Pall Mall galleries being insufficient accommodation for the whole collection. As at the "Royal," there are several pictures from America hung on the walls of the Salon and the honors for originality of treatment in portraiture must be awarded to A. Romano with a study in powerfully contrasting lights. A fresh landscape overshadowed by a cloud modelled in the form of a man's head is the eccentric contribution of another worker, and it is by no means the only impressionistic creation. The Continent is amply represented. Holland, France, Spain, and, of course, Germany, although the committee has decided to confiscate the exhibits from the latter country. Belgium too sends a few prints, and they have proved quite a topical attraction along with the naval pictures of Mr. F. J. Mortimer.

British Made Chemicals

Amidol, metol, and hydroquinone are the newest chemicals to be made in Britain. After the declaration of war two manufacturing chemical firms at least realized the seriousness of the position the closing of the German market had caused. As a result Messrs. Johnson & Son, of Finsbury, announce the production of British-made amidol at half a dollar per ounce and the White Band Mfg. Co., of South Croydon, can now supply home-made metol and hydroquinone, both preparations equal in power and quality to the Continental importations. Mr. I. Thomas Baker, the photographic scientist, is directing their production.

A New Daylight Loading System

What sounds to be a feasible system for loadint plates into dark slides by daylight without involving any special and costly apparatus is being introduced by a Glasgow photographer. The dark slide to be used does not materially differ from the ordinary slides in use except that in size it allows the plate a good margin and is fitted with a hinged back. The plates to be used in conjunction with the slide are enclosed in light-tight paper envelopes, each with a protruding flap, which threads easily through a small slit in the side of the slide. In actual use the envelope containing the plate is loaded into the dark slide, one at each side, the only necessary precaution being the securing of the tabs through the side opening. This is facilitated by a tiny spring which holds it steady. Previous to exposure the paper tab or flap is drawn out, revealing the plate in correct position for exposure. After use the tab is returned to its original position by means of the spring at the side and the plate envelope can then be changed in full daylight.

Trade Names

An interesting application was heard in the Patents Court a few days ago when Messrs. Johnson & Son, manufacturers of photographic chemicals sought to remove the names "metol" and "glycin" from the trade-mark register. The names were registered by a German firm and apply to photographic developers. The applicants urged that these two names had become the regular names of certain chemicals which were seldom asked for or described by any other. The British agent of the German firm in question opposed the application and it was finally handed over to the Board of Trade to be dealt with.

An Autochrome Projector

Every lateonist has at some time or other noticed the effect of heat from the projector upon autochrome plates or transparencies of delicate construction. M. Massiot, a French worker, goes a long way to overcome this difficulty in a new lantern he has invented, and by means of this apparatus he claims it is possible to keep an autochrome slide or the most delicate transparency before the rays of a 40-ampère arc-light for ten minutes at a time without fear of deterioration. The whole secret lies in the construction of the lantern, which consists of two separate structures. In the first is the arc-light and in the second the carrier and objective. Joining the two is the condenser, which, with the aid space around, is kept at a lower temperature than in an enclosed lantern, and by the time the rays pass through the second partition to the objective they have lost some of their heat but none of their illuminating power. But the carrier is the ingenious part. It is designed to take two slides, and in front of the opening for each is a converging lens. In practice while one lens is in use the other is cooling, consequently only half the heat is retained in the glass.

Mr. Charles Sawyer

Mr. Charles Sawyer, a director and practically the proprietor of the Autotype Carbon Company, died on September 22, after a prolonged illness. To Americans visiting London upon photographic and trade enterprises Mr. Sawyer was a familiar figure, having been with the company from an early age. In the development of the carbon process (of which in this country the Autotype Company are the pioneers), he was actively associated on the technical side in particular.

Germany's Exports

Since the outbreak of hostilities the statistical department of the British Board of Trade has been busy comparing exports and imports of the country against those of Germany and Austria. Unfortunately the figures given may appear to the American mind a little belated for the most recent available are for 1912. In that year the total exports from Germany of photographic preparations and chemicals amounted in value to close upon two million pounds. Of this £232,000 worth reached the British market and something like £186,550 worth of goods were exported to the United States. Obviously this volume of trade must have increased considerably since the year 1912, but the above figures are an effective guide to the enormous amount of photographic goods shipped from Germany to Britain and the United States each year.

J. B. SUTCLIFFE.

EDITOR'S TABLE

Increasing the Volume of Business

NEVER in the history of photography has there been a time when the discussion of its purely business side was so much in evidence as during the past year. The subject of business methods in the studio has received consideration at the hands of almost every State Association during this period, and in many cases has been made the topic of addresses and discussion on the convention programs.

That this is so, is not at all to be wondered at, for when the conditions are carefully studied it seems apparent that this is the one most prominent and urgent need of the craft today.

The one thing, however, that does strike the hearer very forcibly in connection with these discussions is the noticeable unanimity of all speakers that the one feature of business development most sorely needs attention. Even the most cursory study of these addresses leads to one conclusion, the first real reform is needed not only in a system but in the department of publicity. It is not claimed that the average studio requires greater proficiency in the production of its output, but that something must be done to increase the volume of its business.

Something to change conditions and to awaken the people of the several communities to a keener desire for photographs than they seem to possess. It is now generally accepted by thoughtful men that photography, if it is to be anything more than a mere hand to mouth business, must follow the lead of almost every other trade, craft, business, and some professions and must take some definite means of attracting and holding the buying interest of its communities. What this means shall be or how the problem is to be worked are questions that must be answered by each studio after a careful study of local conditions. No hard and fast rule can be laid down as being good for all or even as being good for some and bad for others—but the concensus of opinion is clearly that more attention should be paid to the subject than heretofore and a greater effort put forth to increase the popular interest in and demand for good photography.

This very question was widely discussed at the last National and a committee appointed to promote and foster publicity.

All effort, therefore, should be directed toward a permanent betterment of conditions. Methods which have as their object a spasmodic improvement tending to produce quick returns at the expense of future business are unwise. Any plan of publicity that is not based upon the future and so worked out as to form part of a systematic continuity of effort is as a general rule not a wise one. No system has as yet been aroused that will produce immediate returns of any considerable amount and that may be counted on to be lasting. All effort of this kind is cumulative and the results that come from it must be largely due to a persistent and well directed series of attacks at frequent intervals.

Ticket schemes and coupons are in favor with some, but the feeling is now very general that they do more harm than good when used by a studio making any pretense of doing high grade work. The public knows that it cannot look to get something for nothing and that the man

who offers it has some motive for the offer other than one of benevolence.

Every effort that can be made to build up a higher regard for the product of the studio in the mind of the public, should be taken advantage of. A carefully prepared, well displayed announcement in the daily or weekly paper may not bring any larger number of orders that can be duly traced to it—but it will almost always be found a profitable method of publicity, no matter how high grade is the work of the studio or what the standing of its patrons.

The proper kind of announcements frequently changed and published in a medium that reaches the class of readers desired in the studio serves to keep alive an interest in photography and to influence its readers toward the advertiser to a degree that can never be measured. The value of this kind of publicity is fully understood and appreciated by other classes of business men, who spend daily large sums of money merely to keep their names before the buying community. All mention of prices charged should be omitted from such advertisements except it be in connection with some special offering in which novelty, quality or some other attribute than price forms the chief attraction. Avoid that which seems to point to the price as an attraction.

Do not hesitate to call attention to your window or show-case display, but do not fail to make that display an attraction to the public and a credit to yourself. Far too little thought and attention are given to this part of the studio publicity. In the show-case should be found the freshest, brightest, choicest specimens of the studio output. *They should be changed frequently*, should *be kept scrupulously clean, and the case should not be crowded.* A few, well chosen subjects, so displayed as to invite notice, will invariably bring better returns than a larger collection—more closely huddled together.

With attractive newspaper announcements to influence public attention toward the studio and with a pleasing and effective display at the door of the studio to claim the notice of that part of the public that passes it, a great many people will find their way into the reception room, who would otherwise pass it daily without a thought that your business had any direct interest to themselves.

It is curious and interesting to study the effect of suggestion on the human mind and in nothing is it more plainly to be seen than in the advertising of so-called luxuries, whatever they may be.

Without the newspaper, the booklet, or the printed matter, now used in every field of business enterprise, a large proportion of the business of today would be impossible. A tremendous volume of the world's business today is due solely to the fact that a community depends upon the advertiser to furnish a suggestion toward the purchase of his product.

There is not a single community in this or any other land where by the use of well-planned methods of publicity there may not be built up a healthy interest in and a constantly increasing demand for photographs. It must come about, however, as the product of suggestion. The desire to have pictures must result from a mental process which has gone through the several stages of development from the inception of the first suggestion.

It must be remembered that a wide variety of temperament and feeling is displayed by purchasers of luxuries and that all these differences are made to play a part in the matter and method employed by the successful advertiser.

Some who print lavishly seem to be actuated by a desire for show. They wish to create an impression of importance or of taste or of exclusiveness among those with whom they associate. Others seem to be satisfied with a knowledge that in patronizing a certain establishment they are sure of getting the best. All these characteristics and peculiarities may be traced and fostered by the judicious photographer and, what is better still, he may cater to these weaknesses without once touching upon his strongest argument.

There is peculiar reason why photography has a direct and urgent claim upon every intelligent person in the land and that is because of its power to translate and make permanent records of ourselves and those dear to us. This should be the keynote of the photographic advertisement, and with this thought as the basis, all sorts of changes and suggestions may be combined. It is difficult and in most cases quite impossible to say what results are traceable to any given effort along the line of publicity. An order may result today from an initial effort dating back a number of years or the announcement of today may not produce a tangible result for months to come.

The man of business in any line has now come to realize that a constant and persistent campaign of suggestion is necessary to his success. The suggestion must always be directed toward the most attractive points in the articles advertized, hence it is that quality should be made the suggestion of consideration rather than cheapness. All advertising that is constructed on

these lines and persistently followed out will pay in the end.

The great mistake that is so often made is to believe that a few well directed but spasmodic attempts to force the public into a studio can ever be successful.

It has been truly said that advertising is to a business what a fertilization is to a farm. No matter how small the farm nor how badly it may be run down the right kind of fertilizers will give it new and increased power of productiveness, and so in the studio will the right kind of publicity, backed up by earnest effort and honest ability, be profitable.

TRANSLATIONS AND ABSTRACTS

By E. J. Wall, F.R.P.S.

Brown and Red Tones on Transparencies

Namias points out that although it is possible to obtain warm or blackish-brown transparencies by mere variation of the exposure and developer, they are when projected but slightly different from pure black images. The various images obtained by toning with copper and uranium salts are very opaque and the tones are not pure. He has for years insisted on the removal of the ferrocyanide compounds of silver, which are not stable to light and are very opaque, and for this purpose has suggested the use of a supplementary fixing bath. For transparencies toned with copper salts any fixing bath containing boric acid is the best, but for those toned with uranium the following is by far the best:

Hypo	200 grams	1400 grains
Sodium acetate .	50 "	350 "
Acetic acid . .	10 "	70 minims
Water	1000 c.c.	16 fl. ozs.

This bath should also be used for plates toned with ferricyanide for blue tones.

It is well known that silver chloride is the most satisfactory as regards obtaining warm tones by development direct, and Namias suggests that all black images that are to be toned by this method should be converted into chloride of silver by immersion in

Cupric sulphate .	10 grams	70 grains
Salt	20 "	140 "
Water	1000 c.c.	16 fl. ozs.

In this the image bleaches and after thorough washing it should be developed with

Pyrocatechin (2 per cent. solution) .	1 part
Potassium carbonate (10 per cent. solution)	1 "
Water	6 "

In this the image first appears red and then gradually darkens and finally turns quite black but gains in density.

If development is stopped while the color is still warm, the image is not stable to light and rapidly darkens. This is, of course, due to the silver chloride that it contains. There appears to be no difference in the color of the image by variation of the alkali. In all cases the picture should be developed in daylight. Treating the plate subsequently with 10 per cent. solution of sodium sulphite clears up the image and increases its stability, as this dissolves the silver chloride.

The following has a still greater action on the color:

A

Metol	10 grams	35.0 grains
Hydroquinone .	5 "	17.5 "
Sodium sulphite .	125 "	437.0 "
Sodium carbonate	40 "	140.0 "
Water	2000 c.c.	16 fl. ozs.

B

Ammonium carbonate . . .	100 grams	700 grains
Ammonium bromide	100 "	700 "
Water	1000 c.c.	16 fl. ozs.

For use mix 2 parts of A, 1 part of B. and 3 parts of water. Transparencies bleached in the above bath when developed with this solution appears first with a reddish-violet tone which gradually darkens and finally become a black-violet that is very similar to the color of a printed-out print. If the quantity of B is doubled, the color is warmer but it acts slower. The image is at first bright yellow and then gradually becomes dark red and finally violet. All these images should be treated with sodium sulphite to increase the stability. The same method may be adopted with papers but the colors obtained are not so satisfactory.—*Phot. Korr.*, 1914, p. 288.

Sabatier's Reversal.

Sabatier was the first to point out that a negative image on a wet collodion plate was converted into a positive, if, during the development, white light had sudden access to it: the negative immediately ceased to develop, became reversed and after about a minute was converted into a perfect positive. Seely explained the phenomenon by assuming that the image, which first appeared on the surface, exerted a printing action in the second exposure,

and allowed the positive to gain the upper hand by its greater intensity. To this conclusion Eder, Vogel, and others adhered. Trivelli ascribed the phenomenon to a species of solarization. Dr. Stenger has examined this question very carefully and finds that a much longer exposure is required to produce solarization than the Sabatier phenomenon, therefore the latter is not solarization. He has also found that the plate, when development has commenced, may be exposed to diffused light from the back and produce the result, therefore it is obvious that it is not a printing effect. From very careful photometric measurements he finds that there is no difference in Sabatier's reversal in duplicates obtained from exposure from the back or front, which is a further proof that it is not a printing action. In order to obtain the reversal it is necessary to develop for some time in the second place. The two exposures must be in accurate ratio one to the other. Incomplete Sabatier reversal looks very like solarization. The positive produced by this process has under the best conditions a slightly softer gradation than the original.—*Phot. Rund.*, 1914, p. 182.

Increasing the Sensitiveness of Bichromated Colloids

Valenta has been experimenting with various additions to the bichromated fish glue which is used for the printing of half-tone blocks. The formula used was:

Fish glue . . .	30 c.c.	210 minims
Ammonium bichromate (10 per cent. solution) . .	40 "	280 "
Albumin (16 per cent. solution) .	20 "	140 "
Water	40 "	280 "

This has a sensitiveness that is lower than collodio-chloride paper, but it can be slightly increased by heating on a water bath. Practically the sensitiveness of the bichromated fish glue is from one-fourth to one-fifth that of the collodion paper. The addition of ammonio-citrate of iron, ammonium persulphate, ammonium ferric oxalate, ammonium vanadate, chromic acid, cobalt chloride, ferric, maganese, and uranium chlorides, potassium perchlorate, nickel sulphate, and oxalic acid in the proportion of 1 c.c. of a 4 per cent. solution to every 50 c.c. of of the bichromated colloid. After standing for two or three days the mixture was exposed with a strip of the same collodion paper until the same number of actinometer was visible as with the original mixture without the addition. Oxalic acid acts as a retarding, chromic acid, potassium perchlorate, manganic chloride, nickel sulphate, ammonium vanadate, and ammonio-ferric citrate show little or no accelerating action. Better results were obtained with ammonium ferric oxalate, ammonium persulphate, cobalt chloride, and the uranyl chloride; but their action was far behind that of cupric chloride, which makes the colloid more sensitive than the collodion paper. Ferric chloride makes it still more sensitive, but the film is rendered so insoluble that it is unworkable. Continuing the tests with cupric chloride it was found that a greater addition of this salt reduced the sensitiveness.—*Phot. Korr.*, 1914, p. 329.

Eder has also tested the same salts as additions to the chromate bath for carbon paper, using a 3 per cent. solution of ammonium or potassium bichromate without ammonia. Ammonium bichromate gave hardly any more sensitiveness than the corresponding potassium salt, but stronger contrast. The addition of manganic chloride or sulphate did not noticeably increase the sensitiveness, while the addition of cupric chloride or sulphate increases the sensitive-from three to four times. Ferric chloride also increases the sensitiveness but makes the tissues so insoluble that it is useless. To test the effect of these additions on the keeping qualities of the tissues, the latter were kept at a temperature of 77° F. for three days and then printed. Tissue sensitized with the pure bichromate solution had become rather more sensitive, but also slightly more insoluble; manganese chloride acts rather as a preservative but the sensitiveness was not altered. Tissue with 0.2 per cent. of cupric salts had their sensitiveness increased about three times, but were much more insoluble. Far better results were obtained with only 0.1 per cent. of cupric sulphate. Tissue with ferric chloride in it became insoluble by keeping. The addition of 0.1 to 0.2 per cent. of cupric chloride or sulphate to the sensitizing bath for carbon tissue increases the sensitiveness and it is well known that the addition of small quantities of alkaline citrates also increases the keeping power; the combination of the two therefore is advisable. —*Phot. Korr.*, 1914, p. 329.

Mr. F. E. Ives' New Printing Process

The English patent (17,799, 1913) for this has just been published and the essential principle appears to be the use of a thin celluloid base coated with bichromated fish glue containing a non-actinic dye, which is exposed through the celluloid base, developed in warm water and subsequent staining and superimposing.

The fundamental basis of the process is naturally the obtention of three constituent negatives, and although the Ives Tripak Camera is that for which the process is naturally designed, he points out that it may be used with any set of constituent negatives, obtained with any camera. This is obviously a great advantage as it does not limit its use.

The actual support suggested is a thin celluloid film. The use of thin films in this respect is not new as Lumière used celluloid as a support in 1890 and exposed through the back, but after development and staining up, transferred the three images to a final support. Krayn (E. P., 13,093, 1902) also exposed carbon tissues on celluloid through the back and subsequently transferred them.

Actually, however, the inventor himself describes in the *Journal of the Camera Club*, London, 1894, p. 63, a precisely similar process, for he says: "The examples which I shall show were made from photochromoscope negatives. Bichromated gelatin films on clear celluloid were exposed from the back by electric light, devel-

oped as carbon prints, the images cut apart, and each dyed to a suitable depth by immersion in a solution of its proper printing color. A great degree of precision is necessary to secure the correct proportionate depth of coloring in the three prints." And he improves on this in U. S. P. 960,939 of June 10, 1910 (application Sept. 14, 1909) by claiming the use of "a film of amyl acetate collodion for celluloid." It is obvious that Mr. Ives adheres to a strict distinction between celluloid as a "camphor-containing nitrocellulose plastic" and a film obtained by evaporation of a solution of nitrocellulose in amyl acetate. This is perfectly legitimate, although one may possibly think that it is straining a point, for a celluloid of equal thickness ought to be of equal practical value. And later in his patent he calls his base celluloid.

His sensitive material may be "gelatin, fish glue, or analogous material." If he uses gelatine then obviously we have the carbon process as has been worked by Lumière (see above), Krayn (E. P., 7188, 1895; D. R. P., 94052, 1897) in which is also claimed "other mucilages soluble in a cold state or even by gelatin." Von Huebl and Czapek (*Phot. Rund.*, 1902, p. 129; A. P., 1902, p. 46) also used Agfa films; Goddé (*Bull. Soc. Franc.*, 1902, p. 296) used Eastman films in the same way.

To secure the high tenuity of relief, which the inventor considers essential, he claims the use of a non-actinic dye. On this point he is distinctly antedated by Lumière's above mentioned patent, for they used silver bromide for exactly the same purpose, and in their paper, descriptive of their color exhibits in the Paris Exposition of 1900, which was published in 1901 (*Bull. Soc. Franc.*, 1901, p. 204) they distinctly claim the use of cochineal red or solid red D for the same purpose and I made commercially at that time many such films.

The next point is the mordanting of the colorless positives by the use of chromic acid, and this is claimed in Ives' patent (U. S. P., 980,962, January 10, 1911, application, April 28, 1910), and he states here that "this treatment contracts, sharpens, and hardens the relief print, and mordants it for the dyes subsequently used," and later he states "the dyes which I prefer to use, and which are mordanted by chromic oxid, are 'neptune green,' a mixture of acid rhodamine and eosin, and 'brilliant yellow.'" The use of chromic oxid, and I use this term as expressing in this case the product of light action on a bichromate salt, was claimed by Selle (E. P., 12,157, 1899) and König (*Natural Color Photography*, König & Wall, 1906, p. 66) says, "no dyes appear to exist which possess all the properties which Selle's process requires. This is the principal reason why this interesting and really original process has not been introduced into practice." And three years ago Dr. König, in a private letter to me, states that there are no dyes that can be mordanted in this way. If then we assume that Ives' "chromic oxide" is identical with the chromate of chromium oxide (Cr_2O_3. $CrO_3 = 3CrO_2$) formed by the action of light on a bichromate (Eder, Reactionen der Chromsaeure und Chromate gegen Gelatin, etc., 1878), then the mordanting is non-proven, and in his English patent the inventor states that it is not necessary.

After staining up the positives they are cemented up preferably by the use of "amyl acetate collodion containing camphor," in other words a solution of celluloid.

These notes are not intended to be in any way depreciatory of the process or the invention; they are merely the ordinary analysis to which I submit every color patent, a course I have followed for my own information for over fifteen years, for the subject has been a hobby with me for even longer than that.—*E. J. W.*

The Chemical Analysis of Dry Plates

(Many methods have been suggested for this and Valenta's seems as simple as any. It is, of course, an open question how far such an analysis may be useful, even to a plate maker, for the constituents of a plate have little bearing on its photographic qualities; still, it is as well to put the method on record.)

Most of the commercial dry plates are prepared with bromo-iodide emulsion, and sometimes a chemist is called upon to determine the total quantity of silver halides and the proportion of iodide.

Of all the methods proposed for this purpose there are few that are satisfactory in separation of the iodide and bromide content, and the complete elimination of the gelatin offers difficulties. It ought, therefore, to be of some interest to chemists to learn a method adopted in the K. K. Lehr- und Versuchsanstalt of Vienna for this purpose, which gives very satisfactory results with correct manipulation.

To determine the quantity of emulsion three or four plates of a given size, 13 x 18 cm. for instance, are weighed, the emulsion dissolved off with hot water, and the dried glass weighed. From this it is easy to calculate the quantity of air-dried emulsion per square centimeter.

To estimate the total quantity of silver halide in the emulsion, 1 or 2 grams of emulsion are scraped off the dry plates and allowed to swell in a beaker in 50 to 60 c.c. of water and then dissolved in a water-bath. The resulting emulsion is boiled up with 20 to 30 c.c. of nitric acid and the precipitate of the halides allowed to settle, filtered off, and washed until the wash waters are neutral. The precipitate should then be carefully dried, carefully freed from the filter paper, and the latter burnt in a weighed porcelain crucible. When the crucible has cooled down the precipitate is placed therein and the the crucible heated till the silver halides fuse and then the whole should be weighed.

The estimation of the content of silver iodide in the emulsion is effected by means of a weighed quantity, 3 or 4 grams of emulsion. The silver halides are separated from the gelatin as described above, well washed, and used for analysis. The iodine content or silver iodide is performed according to Fresenius' method.[1] For this process the following solutions are required:

[1] Fresenius, Anleitung zur quantitativen chemischen Analyse, 6th Edit., 482.

(*a*) A solution of sodium thiosulphate (hypo), which should contain from 13 to 13.5 grams of the pure crystallized salt per liter.

(*b*) A solution of potassium iodide of known content. This is prepared by drying pure potassium iodide at 180° C. and dissolving an accurately weighed quatity, about 5 grams in a liter of water.

(*c*) A solution of nitrous acid in sulphuric acid, prepared by passing nitrous acid gas into sulphuric acid until saturated.

(*d*) Pure carbon disulphide.

(*e*) A solution of pure sodium bicarbonate, made by dissolving 5 grams in 1000 c.c. of cold water. To this solution should be added 1 c.c. of hydrochloric acid.

One should begin by determining the titer of the solution of hypo for iodine as follows: 50 c.c. of the potassium iodide solution are placed in a flask, with a well-ground stopper, that will hold about 400 c.c., and about 150 c.c. of water and 20 to 30 c.c. of carbon disulphide, some dilute sulphuric acid and then about 10 drops of the solution of nitrous acid in sulphuric acid. The flask should be closed, continually and vigorously shaken, allowed to rest and then some more of the nitrous acid in sulphuric acid added to make quite sure that the whole of the iodine is set free. After repeated shaking and resting the supernatant liquid should be poured off as much as possible from the violet-colored carbon disulphide, allowed to rest and then some more of the nitrous acid solution added to make quite sure that the whole of the iodine is set free. After repeated shaking and resting the supernatant liquid should be again poured off from the disulphide into a larger stoppered flask, then about 200 c.c. of water should be added to the disulphide, well shaken, and the water poured into a larger flask; this should be repeated until the wash water no longer shows any trace of acidity. To the contents of the larger flask should be added about 10 c.c. of carbon disulphide, the whole well shaken, and the disulphide put into a second flask, and it should be only faintly colored. The whole of the disulphide is now collected and poured into a filter wetted with water and washed until the water is no longer acid, then the filter should be placed in the stoppered flask and the point broken, so that the disulphide runs into the flask.

To this 30 c.c. of the solution of sodium bicarbonate is added and then some thiosulphate solution run in from a burette, with shaking of the flask between each addition, until the disulphide is completely decolorized. The number of c.cs. used correspond to the iodine contained in the 50 c.c. of potassium iodide solution.

The nitrous-sulphuric acid mixture may also be made by adding quantities of sodium nitrite to pure sulphuric acid until the latter is saturated.

The well-washed silver halide obtained from a weighed quantity of the emulsion is placed in a small Erlenmeyer flask and mixed with an excess of fine zinc shavings and some sodium acetate, and heated on a water-bath until the whole of the silver is reduced to the metallic state. It should then be filtered out, the filter paper washed, and all the filtrate treated as in ascertaining the strength of the iodide solution. The iodine set free by the nitrous acid and dissolved by the disulphide is titrated with the above thiosulphate solution and from the quantity of the latter used the content of silver iodide may be calculated.

Care should be taken in liberating the iodine and shaking that the separation is complete, which can be determined by adding more of the nitrous acid solution to the water and shaking with disulphide. It is advisable to work with small quantities of solution and make sure of the complete separation of the iodine by treating all the wash waters with the nitrous acid mixture. —*Phot. Korr.*, 1914, p. 123.

The Ferrous Oxalate Developer

By E. J. Wall, F.R.P.S.

One of the immediate consequences of the European war has been a marked rise in price of all the organic developers, such as metol, hydroquinone, etc., and for a short time many of us were in fear of a grave shortage of these supplies. But now that one of the large chemical manufacturing firms has taken up the manufacture of hydroquinone, and another that of pyro, we may once more settle down calmly in our armchairs, knowing that although we may have to pay a little more for them, yet we shall still be able to obtain them. Still it may not be amiss to point out the advantages and disadvantages of the old iron developer, and its possible modifications.

The great advantage of the ferrous oxalate developer is that it gives a pure silver image, there is absolutely no organic coloring matter deposited *in situ* with the silver, as is the case with pyro particularly, and others of the organic developers. For photochemical investigations this is very important, but as the majority of negatives are used for commercial photography, this is of minor importance.

Its disadvantages are many. In the first place, excluding panic war prices, it is more costly than the organic developers. Secondly, it is far more troublesome to use. Thirdly, it requires a longer exposure of the plate in many cases.

With regard to the first disadvantage, we may, I think, ignore it, for the cost of a developer is of secondary moment, even at war prices. It is only when one cannot obtain any developer that the cost enters into question. The second point is far more important. Only those who have used this developer for years know how difficult it is to avoid stains; how troublesome to keep the iron solution and how often one gets a sandy deposit of oxalate of lime in the film.

With regard to the stains, there is probably no developer that will so readily cause such a glorious crop. When developing a plate or print with ferrous oxalate, touch a corner with your finger and then admire the beautiful irregular growth of black metallic silver. If your washing waters are hard you can wipe off the sandy deposit of lime oxalate and there is much in the gelatin film itself, that you cannot wipe off, but merely dissolve chemically, either with nitric, hydrochloric or oxalic acids. The second disadvantage is that it entails the use of an inter-

mediate acid bath, preferably of acetic acid, then rinsing and fixing.

The chief disadvantage is that in some cases it actually requires a longer exposure than the organic developers in the ratio of 1 to 1.75, and one cannot tell whether this is so without actual trial of every plate; for with some plates, Seed, for instance, it requires the same exposure.

There are several methods of making the developer. Dry ferrous oxalate, a gritty orange-yellow powder, may be shaken up with a cold saturated solution of neutral potassium oxalate until no more is taken up; the mixture should be allowed to stand with excess of iron salt for at least twenty-four hours with occasional agitation. Another method, suggested by Carey Lea, is to boil 1 to 3 neutral potassium oxalate solution, add ferrous oxalate till it will no longer dissolve, bottle while warm, and allow to stand till cold. Some ferrous oxalate will settle out. By far the most general method is to make it by double decomposition as follows:

A

Neutral potassium oxalate . . .	300 grams	4 ounces
Distilled water .	900 c.c.	12 fl. ozs.

Shake until dissolved or gently heat. This solution should not be alkaline, and it is safer to add a few crystals of oxalic acid to it. It will keep indefinitely, and the only precaution is the use of distilled water; if ordinary tap water be used the solution will at once turn milky, due to the precipitation of calcium oxalate and the solution will be distinctly alkaline.

B

Ferrous sulphate (c.p.) . . .	300 grams	4 ounces
Distilled water .	900 c.c.	12 fl. ozs.

It is important that the salt be in clear green crystals without any adherent yellow powder, which is a basic salt. If any of this basic salt is adherent to the crystals, a slight excess should be allowed in weighing and distilled water be used to rinse them as this carries off the basic salt at once.

This iron solution rapidly oxidizes, and it is preferably to add some acid, either sulphuric, citric, or tartaric, to the distilled water before adding the iron, about a drop or grain to the ounce will be enough. Every time one opens the stock bottle also some air is admitted, and this oxidizes the iron. It has been suggested therefore, to use an aspirator bottle and cover the surface of the developer with a thin layer of heavy paraffin oil, but this is a messy job, and it is far better to make up a quantity of the solution and then fill small bottles with it. There is thus less chance of spoiling the whole of the stock.

Ferrous oxalate is insoluble in water, but soluble in excess of an alkaline oxalate, and the strongest developer that can be made is 1 part of B to 3 parts of A. This, however, is hardly safe, as should any mistake be made in weighing and there be a deficiency of neutral oxalate, the mixture instantly becomes cloudy through the precipitation of ferrous oxalate. One part of B to 4 parts of A is much safer, and as the velocity of development is directly inversely proportional to the concentration of the iron oxalate, this simply means a little longer development, which is of no moment, and the solution keeps clear longer. In all cases B must be added to A, otherwise there is not sufficient excess of oxalate to dissolve the ferrous oxalate formed.

Potassium bromide may be used as restrainer, but as its action is fairly energetic, only from 2 to 10 drops of a 10 per cent. solution should be added to 100 c.c. (= 3½ ounces). Too much bromide tends, as with every other developer, to give harshness. The absence of any color in the image makes it necessary to develop rather longer with iron than with an organic developer to get the same effect on a given paper.

In order to obtain great softness it has frequently been recommended to add a little hypo. What this actually does is to hasten the velocity of development, and not more than one-tenth of a grain should be added to the ounce. At its best this is a dangerous addition, as if the plate is not very clean working, dichroic fog will invariably make its appearance.

After development it is advisable to immerse the plate without washing into a 1 per cent. solution of glacial acetic acid and then place direct into the acid fixing bath.

For bromide and development papers, ferrous oxalate would be an ideal developer were it not for its proneness to give basic iron stains and black stains if the paper is touched with the fingers. In using it for papers one must rigidly avoid touching the paper with the fingers, and the developer must be poured off and the acetic acid bath applied, generally two such clearing baths are advisable and then transfer the print to the acid-fixing bath.

For warm tones there is nothing better than the citro-oxalate developers suggested many years ago by Cowan for chloride lantern plates. By increasing the exposure and using one of the following, any color from pure black to bright red can be obtained:

A. For cold tones:

Potassium oxalate	60	grams	480	grains
Potassium citrate	200	"	1600	"
Potassium bromide	.75	"	6	"
Distilled water to	1000 c.c.		16 ounces	

B. For warm tones:

Citric acid . .	180	grams	1340	grains
Ammonium carbonate . . .	120	"	960	"
Potassium bromide	.75	"	6	"
Distilled water to	1000 c.c.		16 ounces	

C. For extra warm tones:

Citric acid . .	260	grams	2080	grains
Ammonium carbonate . . .	80	"	640	"
Potassium bromide	.75	"	6	"
Distilled water .	1000 c.c.		16 ounces	

In mixing B and C it is better to put the crystals into a large graduate, that will hold at least double the quantity of water, add the water and allow to stand till effervescence ceases.

In fact the solutions may be mixed at night and they will be ready for use the next morning.

To every 3 parts of one of the above solutions add 1 part of the following:

Ferrous sulphate .	240 grams	1920 grains
Sulphuric acid. .	2 c.c.	16 drops
Distilled water .	1000 c.c.	16 ounces

By varying the developers, that is by mixing A, B, and C, in different proportions, a much greater variety of tones can be obtained, and in fact there is probably no method that will give such a variety of tones on developing papers, such as Velox and Cyko, as this.

NOTES AND NEWS

John H. Garo Honored

Boston art and photographic circles are congratulating John H. Garo, the photographer, on the distinguished honor which has come to him in an invitation to show pictures at the exhibition at the London Salon of Photography from September 5 to October 17. Mr. Garo is the only photographer in the New World to receive this invitation. Two Europeans are similarly honored. Their names are to be announced later.

The exhibition will take place in the galleries of the Royal Society of Watercolor Painters in London. Mr. Garo has sent six pictures from his collection of framed gum prints. These were exhibited at the Boston Art Club last Spring.

Automatic Light for Bromide Printing.—When making prints on bromide paper it is required to put on red light for loading the paper under the negative, then white light for the exposure, after which red light is again needed. A French automatic device simplifies these operations, where electric light is used. A pointer is placed on the dial at the number of seconds exposure, then the operator pulls upon a chain and the red light goes out and white light comes on for the exposure for the right number of seconds, then the red light is automatically thrown on and remains lit while the operator charges the paper for the next exposure, or until the chain is again pulled, and so on. The device is useful for making many exposures from the same negative.

Safety Work. Bausch and Lomb Company Receives Praise.—That the welfare work practised by the Bausch & Lomb Optical Company, particularly the measures undertaken by it to promote the safety of its employes, has exerted far more than a local influence is apparent from the correspondence recently received from officials of the Utica Mutual Compensation Insurance Corporation, with home offices in Utica, N. Y.

In a thorough inspection of the plant, conducted in August, G. A. Cowee, manager of the bureau of safety of this insurance corporation, found more than 85 per cent. of all machines guarded and declared that to be a much higher percentage than he had found in any other of the many plants inspected by him throughout the state. In a letter on the subject, Mr. Cowee said:

"I can state that the conditions in your factory are of the best and that your factory is unquestionably one of the best equipped and best safeguarded of any plant I have inspected in the State. As a matter of fact, practically all of your machinery is unusually well safeguarded and protected.

"After the inspection of your plant I made a number of minor recommendations concerning safeguarding your machinery, but in comparison with the total number of machines operated by the Bausch & Lomb Optical Company the proportion of recommendations to the total is really infinitesimal. My inspection report shows that over 85 per cent. of all your machines are guarded. This is a much higher percentage than I have found in any other plant which I have inspected."

The officials of the Utica corporation were impressed with the form of physical examination given its employes by the Bausch & Lomb Company, and requested copies of the forms used in recording the results of such examination for recommendation to other employers insuring with them. Bausch & Lomb Company has expended much time and money during the summer on safety work. A force of men, sometimes numbering as high as twenty, has been engaged in the work of safeguarding machinery at the large plant for the last four weeks, and its task is not yet completed.

THE NEW ATLAS ROLL FILM.—Give Atlas Roll Films a fair and impartial trial. A single roll of Atlas Film exposed in your camera will, when developed, prove conclusively that it possesses to the highest degree every quality desirable in film negatives. Note particularly the following: Atlas Roll Films are non-curling, as the back of the films are coated with a gelatin preparation which offsets the natural tendency of films to curl toward the emulsion side. When dry, they will lie practically flat, making them much more easy to handle when printing. Atlas films possess in the highest degree every quality desirable in a roll film, being exceedingly rapid, non-curling, fully orthochromatic and non-halation. One film exposed and developed, will bear out our claims that Atlas Films are unsurpassed in quality and can be relied upon to produce the best possible results under all conditions. Atlas Roll Films are made by masters of the photographic art under the most modern and scientific conditions. They are unsurpassed in quality and will produce negatives containing the maximum detail, transparency in shadows, with a full range of correct tone gradations, thus insuring pictures of the highest possible quality. They are supplied in all sizes to fit every popular roll film camera on the market.

As the dark days arrived, there is very often times when valuable negatives are underexposed. We note in the advertising section the Imperial Flashlight Plates. These plates are exceptionally rapid and will get the picture where often the ordinary plate will fail.

The emulsion is excellent, producing very beautiful negatives of wonderful qualities. Try them on Montauk Bromide Paper, an exceptional medium for enlargements or contact printing.

An inquiry to G. Gennert, 24 East 13th St., New York, 320 S. Wabash Ave., Chicago, 682 Mission St., San Francisco, will bring you immediate information and samples of the Bromide Paper and Plates if requested.

THE LURE OF THE CAMERA, BY CHARLES S. OLCOTT

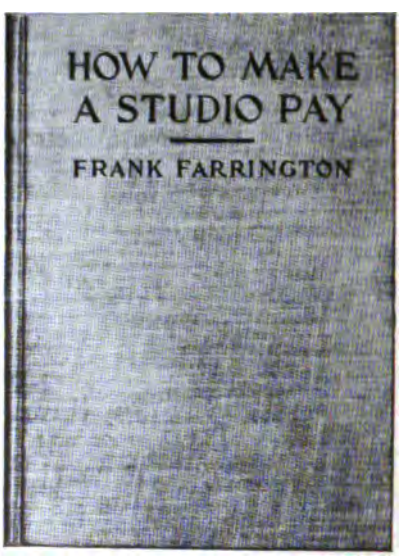
8vo. $3 net. Houghton, Mifflin & Co.

THE sketches in this volume, which takes its name from the first chapter, are based upon "Rambles," which were, for the most part, merely incidental excursions made possible by various "journeys" undertaken for the purpose of illustration. Mr. Olcott has been happy in his title, *The Lure of the Camera*, and few are better equipped to tell of their experiences than he. Those who have admired Mr. Olcott's superb photographic reproductions in his books on *The Country of Sir Walter Scott*, and the novels by George Eliot and Mrs. Humphrey Ward, will have some idea of the quality of the illustrations in this new book, which are both numerous and varying. It has been the practise of the author, for many years, to carry his camera on his travels, so that if chance should take him within easy distance of some place of literary, historic, or scenic interest he might not miss the opportunity of pursuing his favorite avocation, and, at the same time, turn it to practical value. The "Rambles" here chronicled, the author tells us, could not be organized into an itinerary, or molded into a guide-book. Mr. Olcott simply invites those who have inclinations similar to his own to wander with him away from the customary paths of travel, and into the homes of certain distinguished authors, or to the scenes of their writings, and to visit, with him, various places of historic interest or natural beauty, without a thought of maps, distance, time-tables, or the toil and dust of travel. This, he assures us, is the real essence of "rambling" and the real joy of *The Lure of the Camera*. It forms another notable example of what can be accomplished if one has the will and the disposition.

NOW READY

"HOW TO MAKE A STUDIO PAY"

THIS annual, full of good wholesome material, has met with immediate appreciation. John A. Tennant, in the *Photo-Miniature*, says: "There is not a page in the book which does not offer money-making or money-saving suggestions. It is evident that Mr. Farrington writes from a wide and varied experience and he has gift of saying what he has to say in a few words, vitalized by a personal interest, which makes one reluctant to put the book down until read through from cover to cover;" and the *Bulletin of Photography* says: "It is emphatically a work of



practical interest, approaching the subject in a most thorough way; and by the systematic manner in which the author handles the various departments much may be learned which furnishes guidance which may be specifically applied to suit the photographer's local conditions—the particular surroundings and the clientage he may desire to procure."

Ryland W. Phillips, the well-known Philadelphia photographer, in his carefully prepared introduction, says: "Mr. Farrington has placed

in our hands a valuable book, every chapter of which is well worth careful study. He has given us an analyzation of the business side of our daily work; he has attempted to show us not only How to Make a Studio Pay, but how to make OUR studio pay better. I say this because I believe there is not a photographic establishment in existence that has yet reaped its possibilities of profit-taking."

No more important hand-book for the professional has been issued in recent years. The practical subjects covered include: "Buying and Arranging the Stock," "The Treatment of Customers," "System in the Studio," "How to Know the Profits," "Credit and Collections," "Developing Side Lines," "Business-Getting Schemes," etc.

This is an invaluable hand-book for every studio. Price only one dollar ($1.00), postpaid. All orders will receive prompt attention.

THE DEPARTMENT OF PHOTOGRAPHY, SYRACUSE UNIVERSITY

TWENTY students have entered for the course in the Department of Photography at Syracuse University. The Ansco Company have presented the school with twenty-four lenses, some of them of great historical interest and others of practical value. Professor E. J. Wall, who is in charge, is in hopes that eventually he will be able to form a good museum of photography and makes an appeal to all our readers to send to him any "junk," that is useless to them, for the same. Schott & Genossen have presented the school with a complete collection of all the raw materials used in the manufacture of optical glass, and many glasses showing the various faults, such as striæ, bubbles, stones, etc., that occur in manufacture. It is particularly desired to obtain samples of old processes, such as old wet plate and early paper negatives, as well as early forms of cameras and shutters. Professor Wall particularly desires to obtain some early examples of professional work, and also some of the latest phases of artistic photography. In this many of our amateur readers can help forward the movement. All exhibits will be framed, hung on the walls of the school and acknowledged, and carriage willingly paid.

IN the *British Journal of Photography*, a correspondent says: "The arc is very good in its way, but is far from a perfect light. For one thing it is too rich in violet and blue rays, doubtless very actinic to the usual high-speed plates, which are only blue sensitive, but when we consider that a normal healthy complexion (and the face is the first consideration in a portrait) will reflect more of yellow and red rays than of any other color, we quite fail to see where this actinic value comes in. In any case the color rendering must be hopelessly wrong . . . the half-watt lamp seems to fit our requirements perfectly, the light being very rich in yellow rays. We have been astonished and delighted with the results we have obtained; sunburn, freckles, red hair, etc., are no longer terrors to us. The color rendering is beautiful, fair hair comes out fair and fleecy; the eyes, instead of being dull and lifeless, are now sparklingly brilliant as in daylight. . . . We have enclosed two prints of the same subject. No. 1 taken with the enclosed arc; No. 2 was taken by the half-watt lamps, arranged in exactly the same position as the arc. . . . In No. 1 the face is disfigured with freckles, the eyes are dead, the likeness is poor, and has a general cheap look. In No. 2 an immense difference is noticed, the freckles showing scarcely at all, the eyes look more life-like, also the hair is greatly improved, and the likeness is good. The subject has a good, healthy sunburnt complexion. Both negatives are quite untouched, not even spotted."

The Radion Portraiture Light uses a lamp of the same type referred to above for Print No. 2, but specially constructed in a larger, more powerful size and the Radion "Super-voltage" system (patents pending) *doubles its efficiency*. For complete information, write the H. C. White Company, North Bennington, Vt., mentioning WILSON'S PHOTOGRAPHIC MAGAZINE.

THE Century Sliding Ground Glass Carriage, for double plate holders, is constructed to fit 8 x 10 and 11 x 14 Century Studio Cameras. The carriage is so constructed that the receding ground glass back can be shifted to either side, permitting the operator to make negatives the full size of the plate, or two 5 x 8 exposures on the same plate with the 8 x 10 back and two 7 x 11 exposures on the same plate with the 11 x 14 back. A convenient labor- and money-saving device that should be in every studio equipment. Sold by dealers generally. Century Camera Division, Eastman Kodak Company, Rochester, N. Y.

A FALSE RUMOR

IT has come to our notice that there have been rumors to the effect that, on account of the European war, our factory has been closed and that the American branch is about to be closed.

These rumors are altogether unfounded. While it is true that we have decided not to accept orders at the present moment, yet we do *not* intend closing our business. As soon as conditions become settled, we shall again be ready to take care of the needs of our customers.

(Signed) CARL ERNST & Co.
New York.

EASTMAN PORTRAIT FILM produces negatives of superquality and unusual gradation. The emulsion is fine grained and has about the same speed as the Seed 30 plate. Non-halation is practically overcome. Convenient to use, light in weight and no chance of breakage. Home portrait, studio and commercial photographers find that Eastman Portrait Film means a high standard of negative quality. Sold by all dealers. Eastman Kodak Company, Rochester, N. Y.

IF you want to use a mountant that you can be sure will give the most satisfactory results—choose Higgins' Photo Mounter Paste. It is always ready to use, and there is nothing in it to harm the finest prints. The prints will stay flat, won't become loose or will the edges curl. You can buy Higgins' Paste from most any dealer.

Just a Few Reasons Why the Photographic Business Should be Good this Fall

1. Bumper crops of wheat, oats, and corn; largest ever known.
2. European competition in manufactures eliminated.
3. The recent reduction in tariff will not count, as there will be no goods imported.
4. Our exports are needed more than ever in tbe warring nations and nations at peace which have hitherto been supplied by those now at war.
5. Both coasts of South America are now open to us and demanding our products. This being made possible by the opening of the Panama Canal.

Go forward to success on the high tide of national prosperity. Those who see it first will go farthest. Prepare now for the great advance. —*Ohio Photo. News.*

Replies to Queries. Lawrence Davidson —Your experience in the matter of prints, both developed and printed out, fading and in several instances the image disappearing altogether, after you had packed between them pieces of celluloid from which the gelatine film had been removed, has occurred with others also. The reason is this, the celluloid in the first place was made from nitrocellulose (gun cotton), that had not been properly washed after nitrating, so that a small quantity of both nitric and sulphuric acid remained within the celluloid at the time of its production. The consequence being that the trace of free acid in the celluloid attacked the organic silver image upon the paper, and caused its disappearance or actual destruction, and in course of time the paper base would also become attacked from the same cause.

Quality alone makes Artura "the paper without a disappointment." Artura does not need any detailed information as to its successful printing qualities. Professionals everywhere have found it to be the one developing paper they can always depend upon to bring out the best in every negative. If you are not already an Artura user—your dealer will supply you. Artura Division, Eastman Kodak Company, Rochester, N. Y.

New Flash Light Powder.—Flash light powders for photographic use are generally made up of magnesium combined with a substance rich in oxygen such as chlorate of potash, but the great drawback of such powders is that they give rise to considerable smoke or fumes. Efforts made by European inventors to find a photographic powder that gives but little smoke have now proved successful, and the new "Excelsior" compound uses magnesium and oxygen-bearing substances coming from the rare earths. For this purpose, peroxide of lanthanium was chosen, and to it are added substances analogous to what are found in Welsbach lamp mantles. The whole forms a powder which is claimed to give an excellent flash light and has but one-tenth the amount of smoke. The small amount of fumes dissipates almost at once in this case.

The Last Call

December 1 marks the close of Ansco Company's $5000 Loveliest Women Contest. This leaves you but a few weeks in which to make your final entries.

Why not make special effort to round up as many prospects these few remaining weeks as you have in all the months preceding?

Take a look through your old negatives; pick out those that impressed you several months or a year ago as having prize-winning possibilities. Make some new prints of them; give them the very best work of which you are capable—then send them into the contest while there is yet time.

Fifty camera users are going to get cash prizes of $50 to $500 each. YOU have just as much chance of walking off with one of these real, spendable prizes as the other fellow.

Are you going to stand aside and assume a what's-the-use air or are you going to take advantage of every minute that is left to turn this contest to your advantage?

Remember, besides the chance to win $50 to $500, the winning photographs, enlarged to life-size and the names of their producers will be exhibited to the gaze of the entire world in 1915 at the big Panama-Pacific Exposition.

Besides this, leading magazines have requested permission to reproduce the winning photographs as soon as the contest is over and the judges have made the awards. Think of the international fame attached to such an exhibit, both for the lovely women and the photographer.

Let's go to it with renewed vigor and a determination to make Ansco Company's $5000 Loveliest Women Contest one that will live in photographic history for years to come.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, ETC.

of Wilson's Photographic Magazine, published Monthly at New York, N. Y., required by the Act of August 24, 1912.

Editor. Thomas Coke Watkins, 122 East 25th St., New York City.

Managing Editor, Thomas Coke Watkins, 122 East 25th St., New York City.

Business Managers, Thomas Coke Watkins and Edwin S. Brown, 122 East 25th St., New York City.

Publisher: Edward L. Wilson Co., Inc., 122 East 25th St., New York City.

Owners: Thomas Coke Watkins and A. M. Watkins, 122 East 25th St., New York City.

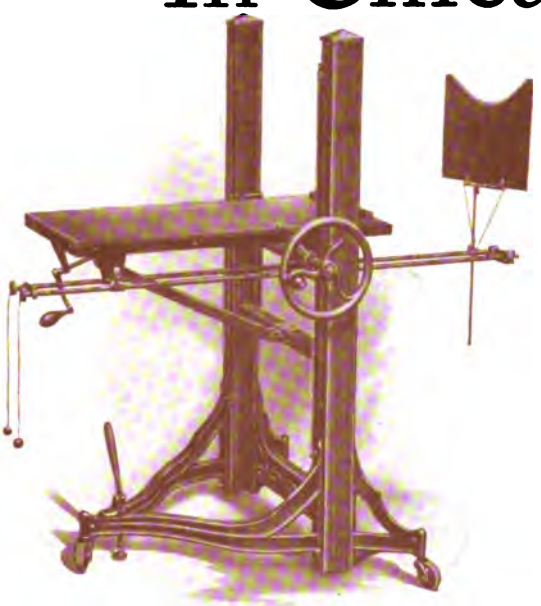
Known bondholders, mortgagees, and other security holders, holding 1 per cent. or more of total amount of bonds, mortgages, or other securities: NONE.

THOMAS C. WATKINS, Editor.

Sworn to and subscribed before me this 21st day of September, 1914.

Catherine C. Blair,
(Seal) Notary Public.
(My commission expires March, 1916)

A Photographer In Chicago Says:



F. & S. Vignetter attached to Century Stand.

"Both Vignetters you sent me are now in use; one in each Skylight room. My operator and I can not say too many good things about them The Vignetters are the best ever—perfect in every way."

He was talking about the new F. & S. Vignetter, a high grade, low priced vignetter that really accomplishes the purpose for which it is made.

We believe you will find this vignetter just about the best ten dollars' worth you ever placed in your studio.

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NUMBER 12

WILSON'S PHOTOGRAPHIC MAGAZINE

EDWARD L·WILSON CO·Inc·
122 East Twenty-Fifth St., New York

Ansco Film

The article and invention for which many millions were paid as a result of the decision handed down by Judge Hazel, in the United States District Court of Buffalo, which decision was affirmed by the United States Circuit Court of Appeals.

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Be sure to load your camera with the **original, genuine** and perfect film.

Ansco Company

Binghamton, N. Y.

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Loaded with Ansco film there is no question about results. Printed on prize-winning Cyko paper, the pictures will be crisp, clear and sharp.

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ANSCO COMPANY
Binghamton, N. Y.

WILSON'S PHOTOGRAPHIC MAGAZINE

AN ILLUSTRATED MONTHLY DEVOTED TO PRACTICAL PHOTOGRAPHY AND PHOTOGRAPHERS

THE OLDEST PHOTOGRAPHIC MAGAZINE IN AMERICA

THOMAS COKE WATKINS, Editor

Official Organ The Women's Federation of Photographers

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SUBSCRIPTION in advance, United States and Mexico, $3.00; Canada, $3.25; Foreign Countries, $3.50. Single copies, 25 cents. Subscriptions begin with current issue unless otherwise ordered

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EDWARD L. WILSON CO., Inc., 122 East 25th St., New York

THOMAS C. WATKINS, President — HARRY S. VOORHIS, Sect. and Treas.

AMERICAN NEWS CO., Distributing Agents for U. S. — HOUGHTONS, Ltd., London, Eng., Agents for Great Britain

Entered at New York Post-office as Second-class Matter

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WILSON'S PHOTOGRAPHIC MAGAZINE

For 1915

¶ The fifty-second year will be the most notable in the history of WILSON'S. Filled from cover to cover with Practical Papers on Practical Work. Covers every phase of Photography. Illustrated with Choice Reproductions by the Leading Photographers of America and Europe. Bigger and better than ever

WILSON'S PHOTOGRAPHIC MAGAZINE

PROGRAMME FOR 1915

IT IS IMPOSSIBLE to outline all the good things, pictorial and otherwise, which will appear in the Magazine during the forthcoming year. Here are simply a few hints:

Full-page Illustrations
By Prominent Photographers

Portrait Studies in the Latest Styles
Examples of Posing, Lighting
And the Use of Accessories

Out Door Work, Commercial and Artistic
Groups and Interiors
Genrè and Composition

Hundreds of Engravings from
The Work of the Leaders

The articles of the year will include Practical Talks on Studio Work; Toning Methods; Business Details; Lighting Difficult Subjects; Familiar Explanations of Every-day Troubles; Photographic Work In-doors and Out-doors; The New Lenses and their Advantages; Photographic Advertising; Viewing and Landscape Work; Photography Abroad; New Formulæ and Processes; Practical Points from the Studios; Novelties; and all the news of the photographic world—concisely written and profusely illustrated. The 1915 volume of the Magazine will be indispensable to every progressive worker. Send in your subscription without delay to avoid missing any number.

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—*From Introduction by Mr. Phillips.*

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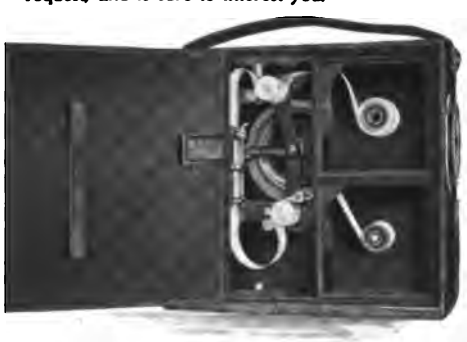

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BOSTON, MASS.

WILSON'S PHOTOGRAPHIC MAGAZINE

FOUNDED IN 1864 BY EDWARD L. WILSON

VOL. LI DECEMBER, 1914 No. 12

A JAPANESE PRACTITIONER: OKI SEIZO

BY SADAKICHI HARTMANN

(SIDNEY ALLAN)

THE Japanese as a race are known for their gift of adaptation: It extends to all phases of intellectual as well as material activity; but nowhere does it seem to be more palpable than in the domain of photography.

Imagine an alien, springing from a race that has an entirely different and older culture than ours, with an art fertile and exceptional as that of Greece as background, to be able to make portraits of American people as satisfactory as that of any native professional! It is difficult to believe, and the more astonishing as most of these craftsmen from the Far East are hardly a decade in the country. They simply come, apprentice themselves to some photographer of repute, and conquer. There is Kejiwara in St. Louis, who practices the principles of true pictorialism in professional portraiture, Kukichi in New York, Koshiba with studios in various places, and Oki Seizo in Providence, whose charming personality and pictures furnish the topics of our present discussion. He came to this country ten years ago, worked several years with Koshiba, and after four years of home portraiture has just opened a new studio, laid out and decorated in Japanese fashion.

But there is very little Oriental in his work, and yet there is something. All the Japanese practitioners have one trait in common: They are picture-makers. Their portraits are always picturesque and pictorial. Look over the accompanying illustrations, and you will not find a single jarring note; there is no discord of values, all is blended into a delightful harmony. The two praying children is a story-telling picture, almost of the popular order. The heads of the young girls, all seen in profile or near-profile, have considerable tonal and decorative charm. The one head seen from the back would pass muster in any exhibition. It is the work of a pictorialist.

Yet even in those prints that are straight portraiture, like the young girl seated with folded hands, the pictorial note is not missing. Oki, as his friends

call him (as it is easier to remember), over-exposes rather than under-exposes, and his faces generally show clear definition, or in other words good drawing. The delineation, as far as lines are possible in photographic interpretation, is precise and yet subtle, with vague touches of accent as if drawn by hand with a brush. This is one of the qualities he may owe to his Japanese origin, a preference for clear lines.

By OKI SEIZO
PROVIDENCE, RHODE ISLAND

Another peculiarity is the introduction of detail and the appreciation of texture. Study the portrait of the violinist and the little girl with the muff. We recognize at once that the little girl's suit is of velvet. This may be not a particular esthetic gain, and yet it is an accomplishment; it is pleasant to the eye and adds to the picturesqueness of the composition. In the portrait of the violinist many different textures are brought out—the tie, the pattern of waistcoat and trousers, the braid of the smoking jacket. Furthermore, we see that the wood of the violin makes the impression of wood, the hair that of hair, and there is distinct differentiation in the skin quality of the face and the musician's delicate hand. I have never seen such a superb rendering of material except in the early prints of Frank Eugene. And how he utilizes these realistic values! (I say realistic, for the hands of the violinist are whiter than the face, as they no doubt are in actuality). He succeeds in getting variation and contrast, and yet the picture is in tone, true tone, that goes through the whole scale from the white collar to opaque shadows. In the little girl the braid of the velvet dress is used as decorative color notes.

Another study in detail is the girl at the open fireplace. It is an experiment

By OKI SEIZO
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on Cyko, which is a detail paper. The print brings out inconspicuously a vast amount of detail, but somehow the textural quality is missing. The Angelo paper has the peculiar efficiency of swallowing up detail in the shadows. It is an ideal paper for tonalists, as it broadens the pictorial aspect of things. Oki has made wise use of this quality. He uses it sparingly and generally as well-defined decorative spots. In the

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two praying children the left corner is almost too bald and black, and yet the dark corner helps to concentrate the interest on the two kneeling figures. If the corner showed more detail, the figures had to be lighter.

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PROVIDENCE, RHODE ISLAND

The portrait of the baby with folded hands is fortunate in its facial expression, as the latter by itself, without any consideration of technique or composition, is sufficient to give to any interpretation the popular pictorial note. Oki always strives for facial expressions that carry out a vague mood better than a pleasant composite and typical expression. Look at the girl in the black mantilla, the violinist, and the various heads of the young girls and children. They are moods and no doubt spontaneous ones. This is particularly noticeable in the girl with the sailor collar. Whether it is the most characteristic or one of the most characteristic expressions the girl's face is capable of, of course, is difficult to say, but it surely looks natural and brings out the beauty of the face. This faculty of reading faces may be another inherited trait. There was never any Japanese art of portraiture, as we understand the term, but the Kyoto artist possessed the faculty of keen and subtle observation, only that he did not apply it to the human face, but merely to the life-like and half-humorous interpretation of animals.

What we miss in Oki's work is the application of Japanese methods of composition, so different to ours and dependent largely on space arrangement, parallelism and repetition. Well, the decorative flat-tint treatment of the East is not suitable for tonal treatment, and Oki at present is a tonalist. Besides, as Mr. Oki said to me, it would be very difficult to combine the two elements, as Whistler has done. Eastern composition was the result of costume and background and—tradition. The aspects and conditions of life and nature are different here. It is a question whether the public—even the most cultured—would appreciate it in *photographic* portraiture. All one can do is

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to work in the spirit of the Eastern artist. And this Oki surely does. He is a good technician, taught by some of the best men in the country, but he never speaks of technique. To him interpretation is the main ambition.

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He wants character, beauty and art, as far as he understands it. It is a worthy task, and his prints show that he is true to his ideal. Whatever Oki does is in good taste, and that is an accomplishment which can be found nowhere more frequently than among that race of nature worshippers who still gaze with something like religious ardor at the snow-clad summits of Fuji and the perennial splendor of plum and cherry blossoms.

By OKI SEIZO

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By OKI SEIZO

PROVIDENCE, RHODE ISLAND

LIGHTING

BY FELIX RAYMER

FOR the past forty or more years various ideas have been advanced by various workers for the lighting of the face as we see it under the light, and personally I have not the slightest doubt but that all claims made have been "founded on fact," so to speak. In other words, every worker is a "law unto himself," and manipulates his light to suit himself. But there can be no question that there must be a right and a wrong way of lighting. Now the next question for consideration would naturally be: What is the right and what is the wrong way? The answers to these two questions are so obscure or hard to arrive at that the average worker almost hesitates to go any further in his investigations. One great, and perhaps the greatest reason for his hesitation lies in the fact that we, as photographers, cannot, with any degree of positiveness, point to any particular name or person as being a recognized authority. Why? Perhaps the reason may be found in the fact that we are young in years as a profession, many of our earliest followers yet living, and it is a historical fact that the benefit of one's knowledge and efforts are seldom reaped until after one has passed over the "great divide." With the artist, or the follower of Rembrandt, Rubens, Turner, Murillo, Michael Angelo, and perhaps scores of others, it is different. For ages past their ideas and in many instances their advice and their instructions have been handed down to their successors until it has almost become a sacred matter to those receiving them. We, as photographers, dealers in "*light* and *shade*," have been and are now "worshipers afar off," trying with our meagre possibilities to gain a little instruction from these selected few. It is an old and tiresome saying that we are hampered by not having "color" to aid us in our endeavors. This saying, like most old sayings, is true, and we must sooner or later realize it. As soon as we have reached this station in our professional career the next consideration is, how am I to make work that will be classed as artistic? To this question there can be one answer, and that is, by so controlling your lights as to secure artistic effects in black and white, the only means at our disposal for producing pictures up to the present time.

In my personal experience under the light, which has extended over twenty-one years, and in handling all classes of subjects, I have found that there is one main consideration to be taken into account in producing artistic work, and that is the direction from which the light falls on the subject. There are other considerations of a minor importance which will doubtless enter into the lighting of the face, but they are in no wise to be compared to this one of "*direction*."

It has been my privilege within the past few years to attend a large majority of the State and national conventions, where I have heard the various claims made, and seen the demonstrators work the light in their own way, and I have found that in *all* cases their first thought was for the direction of the light as it fell on the subject. One man would claim that he used as large a source of light as he could possibly get; in other words, he used no curtains of any description on his light. But I noticed when he demonstrated his method of work he would have his subject posed at least as far from his side light as his top light would measure upward from where it joined with the side light. For example: If we are using a light, the top light of which measures twelve feet from the side light up to its highest point, and we pose the subject twelve feet into the room, measuring from the

lower end of the side light, all that will then be necessary is to lower the curtain (if curtains are used) on the side light just enough (no more) to secure a catch light in the eye (or *speck*, as the public calls it), this light is thus obtained, provided, of course, that the head has not been turned so far away from the light that no light at all strikes the shadow side of the face. In this connection I would say that as soon as there appears a soft light on the shadow cheek, which will be due to the face being turned far enough to the light to catch it, if the light from the side is low enough the catch light will appear. If no curtains are used on the light there will be no question on this point, as the catch light will show itself just at the instant the face is turned far enough to the light to show the soft light on the shadow cheek.

BY OKI SEIZO
PROVIDENCE, RHODE ISLAND

Now, someone (or more, perhaps) will think, "Yes, this may be good under a double-slant light, but I have a single slant; what will I do?" Do just as that brother did who was using the double slant. Have a certain portion of your light top light, and the other portion will be side light, and for all practical purposes it will be found to work the same. If, for example, the upper half of your light is, say, ten feet, the subject should be faced ten feet into the room from the light.

At this stage of the game we run up against another point of lighting that has often been mistaken for a principle of lighting, and that is, the question of the *strength* of the light as it rests on the subject. That is, whether it be strong, bordering on contrast, or soft or delicate. This, to my mind, is *not* a principle, but merely a personal preference, and is to be determined by each operator for himself. Over and over we see pictures by men of national reputation, one making strong, bold lighting, the other soft, delicate, and full of detail, but upon a close examination we find the light falling upon the subject from the same direction viz.: half way between the highest point in the opening of the light and its lowest point, or, as it is known to the average worker, an angle of forty-five degrees. As to the size of the opening, that has, in my opinion, nothing to do with the resulting negative other than the consideration of whether it shall be a negative strong in contrast or one of soft, delicate quality—the smaller the source of light the more concentrated it will be at certain parts of the face—forming high lights, and accentuating those parts, while the half-tones and shadows are held down to their proper weight. The larger the source of light the softer the effect, and the less we notice any one or more parts of the composition being of greater importance as compared to other parts.

Now we come to the operator who uses curtains or screens on his light, and I find by close observation that he differs but little from his brother who uses no curtains. In working his lightings he is

governed by that most important of all considerations, the "direction" of his light, and after he has completed his lighting, and we examine it closely, we find that he has made but one difference, namely, in the *size* of his light, he having curtained it down until it is much smaller, but at the same time he has moved the subject nearer to it, making, perhaps, a stronger or more bold effect, which was merely his own taste, judgment, preference, interpretation, of the requirements of the subject, call it what you may.

So we can arrive at but one conclusion, and that is, we must work for the *principle* of the light and not for the *method* of obtaining it. 'Tis but folly for any one man to claim he has the "only way for lighting the face." There is no such thing as "a way," but "the thing" is to know the *principle* of it, and what matters "the way." It is just here so many of us have misunderstood our artist friends in their lectures at the conventions. They have undertaken to tell us the *principles*, and we cried out for "a way." The *way* must rest with each individual, and as soon as that individual has found the *way* he establishes his own individuality, and that individuality belongs to him and no other, but it must be founded upon the *principles* governing his work. What are the principles? That is too long a story. Perhaps at some future time I may try and tell of them as I understand them. But, as stated before, the "direction" of the light as it falls toward the subject is the *first*.

FIXING STEREOPTICON AND LANTERN TRANSPARENCIES

BY "PROFESSIONAL"

WHEN making stereopticon transparencies there is one part of the operation that should receive especial attention, viz., the making-up of the fixing bath. More care and attention are necessary in the preparation of this bath than is usually given in the case of a negative fixing bath. It was in the fall of 1911 that I had received orders for an exceptionally large number of stereopticon slides, to be made and finished on time. The number ran into the hundreds, and, like all things that are done in a hurry, trouble began almost at the outset—spots, transparent spots, galore. Upon examining the fixing bath, which, I may add, was the chrome-alum-hypo bath for fixing negatives, I found upon filling a pint glass graduate that the liquid was full of specks of a yellow and brown color. There was no time to speculate, the green color of the liquid was not to my liking. Thinking it might have something to do with the trouble, I started in right away and made up what I thought would prove to be the right thing. Events proved my surmise to be correct. The following compound fixer, as I call it, was made up with cold water:

No. 1	
Water	40 oz.
Hyposulphite of soda	16 oz.
Dry sulphite of soda	3 oz.
No. 2	
Water	40 oz.
Common alum	3½ oz.
Potass. bisulphite	1 oz.

Both were stirred vigorously until all the chemicals were dissolved, using a piece of wood for a stirrer. No. 2 was added to No. 1, mixed with the stirrer, and left to itself all night. The next morning the clear liquid was decanted and filtered and the sediment poured down the sink. With my assistant we started the work, and exposed twelve

MRS. VERNON CASTLE

BY IRA L. HILL
NEW YORK

plates in short order, making the exposures from different negatives, with the result that brighter and clearer slides I never saw. The color, too, was well kept, the high lights clear glass. There was no time to be lost, so with my assistant we got through with the first order, making the transparencies from over one hundred negatives, fixing all in this fixer. The bath was filtered again the next day and used, meantime another one was made up and allowed to stand to become clear. From that time on no other fixing bath has been used by me for stereopticon transparencies. The lesson that was taught was, always be sure about the fixing bath being clear and keep it so by both decantation and filtering. If lantern slide makers have had trouble in this direction, they will find that it will cease from the moment a clear fixing bath is used.

A few special slides were to be made in color, some of them in two shades of blue and some in Venetian red. Here is the formulæ for both blues and the red. A chocolate brown can be made by stopping short of the red tone.

BLUE TONER, No. 1

Ammonio citrate of iron, Green scales	āā	5 gr.
Water		2½ oz.

No. 2

Red prussiate of potash, Ferricyanide	āā	5 gr.
Water		2½ oz.

Dissolve each separately, mix, and add 3 drops of strong nitric acid.

Pour this directly upon a dry transparency and keep the tray in motion. In the course of a minute or two the color will change to a bright blue. Wash the plate for five minutes and dry.

INDIGO BLUE

Prepare a mixture of carbonate of ammonia or borax	6 gr.
Water	4 oz.

Pour this over the blue transparency in a tray, keep the tray on the move; lift the plate in ten seconds; wash in a stream of water. The color will be found to be a true indigo blue.

VENETIAN RED TONES, No. 1

Water	4 oz.
Nitrate of uranium	5 gr.

No. 2

Red prussiate of potash	5 gr.
Water	5 gr.

Dissolve; mix No. 1 and No. 2; add three drams of No. 8 acetic acid; tone two or more at a time. Toning will be complete in five minutes or thereabouts. A delightful Venetian red will be the result. The only thing to do after toning will be to wash the plate for five minutes and dry, when it will be ready for finishing with the cover glass and affixing the title.

EASING THE SHUTTER OF THE DARK SLIDE

THE book-form dark slides with hinged wooden shutters sometimes work stiffly, especially when new, and may give trouble by causing the camera to move when drawing the slide, necessitating the replacing of the focussing screen and rearranging the picture on the ground glass. It is better that the shutters should be too stiff than too loose, but if they are as stiff as all this, they may be eased by drawing them out as far as they will go, and then rubbing the sliding parts, both the edges of the shutters and the grooves in which they work, with a black lead-pencil. The shutters are then worked in and out a few times, and when they are found to slide easily the whole double-back may be given a careful dusting out, and is ready for use.—*Photography.*

DAILY PRACTICE IN COMMERCIAL PHOTOGRAPHY

BY A. J. JARMAN

PART III

IN the last article the mounting of prints for exhibiting in the album, for trade purposes, was described. There are, however, at times much larger work to be done than this—life-size portraits, for example, such as are used for theatrical advertising, also the mounting of a series of prints so as to form a panoramic view, perhaps, nine or ten feet long.

In cases of this kind the method differs somewhat. The stretchers are made in just the same way as those described for the album prints, only they are longer, and a couple of wooden braces must be fitted across the inside of the stretcher. The object of this is to relieve the strain, which is considerable, when the prints and the pasted muslin or canvas dry down.

In the first place the muslin must be stretched upon the frame as previously described, and well secured with tacks, and made damp by rubbing the surface all over with wetted absorbent cotton, not too wet, the surface being only well dampened. Should there have been too much water applied it may be removed by rubbing the surface carefully all over with a folded dry towel. The cotton used must be in the form of a big lump, so as to hold a moderate quantity of water.

A large sheet of paper must also be well wetted upon both sides and pasted all over upon one side. The paper used for this work is usually Steinbach's Saxe, supplied in rolls and of a light-cream color. This paper is very strong, and forms a fine backing for any kind of print. As soon as the paper is pasted it is lifted by each end by two persons, while two more stand ready to guide the middle and aid in laying it down upon the damp muslin.

Now comes the rubbing down: This is carried out by holding a plate of glass (11 x 14 is a handy size) beneath the muslin, while the top of the paper is very carefully rubbed down with the cotton that was used to damp the canvas or muslin, the consequence being that by the pressure applied with the right hand on top, and the left hand holding the glass plate, the paper and muslin become uniformly pressed together. The sides and under the paper, meantime, must also be well secured by tacks, placing them in between those that hold the canvas or muslin. This amount of tacking is necessary owing to the great strain that takes place when the whole dry down.

The mounting of the print, or prints (if panoramic), must now be done upon the top of this paper while in a damp condition, and carefully rubbed down to get rid of all air bubbles. When this is accomplished, the stretcher is placed endwise upon the floor, standing perfectly upright and level, and left in this position for the night, when the following day the prints will present a beautiful, evenly stretched surface, and when struck by the hand will ring like the head of a drum, when they may be cut from the stretcher and mounted or rolled for delivery.

In some instances the stretcher may be made permanent, like the stretcher of an artist's canvas, and allowed to remain; but in this case, if the prints are to be framed for outside show, the life-size portraits are coated with a wash of clear gelatine while in a wet condition. As soon as they are mounted a twenty-grain gelatine solution of clear Wright's gelatine must be used for this operation, the object being to prevent the final coating of varnish

from sinking into the paper, because this would entirely spoil the print.

Large prints mounted and prepared as described realize big prices. It must be remembered that considerable skill is necessary to carry out such work as this, and unless carried out upon the lines given herewith the mounting will not be successful. Provision by thorough tacking is essential so as to resist the exceptionally high strain that occurs when the drying takes place.

As to the kind of paste that is employed, one made of starch, well boiled, answers the purpose well. The following proportion may be used, the starch being mixed and boiled in an oatmeal kettle:

Plain starch	6 oz.
Water	32 oz.

Or:

Plain starch	4 oz.
Corn starch	2 oz.
Water	32 oz.

Mix these well; bring the water to a boil in the outside kettle; do not allow the starch to settle; keep stirring all the while the temperature is rising. Add three drams of formaldehyde to the water, in the first place; then as soon as the mixture thickens well, remove the kettle and add fifteen drops of oil of cloves; stir this in well with the paste; allow it to become quite cold; then strain it through a folded piece of cheesecloth, wetted. The paste will then be fit for use. It will work well in a creamy condition and will never sour.

HAPPINESS

TWO men walked briskly up Fifth Avenue one late afternoon last winter. One of them was a close friend of mine. The other was I.

We were just above the Waldorf. The air was cold, dry, tangy, without bite. It seemed good to be alive.

Hundreds of motor cars, crawling along in both directions, choked the avenue. Smart horse-drawn equipages sandwiched themselves in the procession. The sidewalks were packed with humanity afoot: handsome, ultra-fashionably-dressed women; sleek, smartly-groomed men. Imagine a scene from a stupendous operatic production—with the Bois, Piccadilly, Fifth Avenue, and Michigan Boulevard as the stage—and you've got the picture, framed.

Mammon, in the zenity of his glory, was receiving his daily moiety of adoration.

My friend is fifty. Seasoned and well-balanced in affairs of the world. Well fixed with money. As close to success—taking him by and large—as the world rates most men.

Our conversation fell into a three-minute lull. Suddenly I turned to him and asked: "I wonder if all these people are happy?" "Funny," he replied, "but I have been asking myself the same question in another form. Just what do you mean when you say 'happy'? Do you mean happy in the same sense that they possess a good measure of idleness and light pleasure and money? Or do you mean 'happy' in the sense that they are at peace with their consciences and with the rest of the world?"

"I hadn't thought of the distinction," I said, "but now that you bring it up, I think I mean the latter principally with, perhaps, a little of the other thrown in."

And that's the way with most of us, I guess. We don't stop to analyze what we mean when we say, "There's a happy man," or, "There's a successful fellow."

Then, even if we did, the fact is we don't know a thing about it. He may be living with skeletons that curdle his best feelings, but still remain a good character actor. Character readers to

the contrary notwithstanding, you can't always divine a man's state of mind by studying his expressions or his dress or general manner. You can't put a dictagraph in everybody's bedroom; and even then you might be checkmated.

Surely, money doesn't mean happiness; nor dress; nor pleasure; nor power; nor education; not any of those things.

Happiness, the philosophers tell us, lies within ourselves—a mental attitude which is as unaffected by external circumstances as a nun grown old in convent service. It has nothing to do with collecting dollars, filling the stomach, decorating the body, or making a hit with the ladies.

Happiness, it seems to me—and I am not speaking ex cathedra now or as one skilled in the tenets of social economy—is the permanent mental state of being at calm, sure peace with one's self and with the rest of the world. A mere merry man or woman may be the unhappiest of mortals—since merriment is external and temporary, always.

Maybe that definition of Happiness doesn't quite fit in with your ideas. Maybe it seems too general. If so, you will have to write your own and live with it and by it.

Moreover, only in that way can one establish his own true standard of Happiness—or Misery—by thinking his own thoughts and then living them.

This started out to be a story, lost its way, and then turned into a preachment.

But even preachers have been known to be interesting now and then—Bernard Shaw, Jim Corbett, college professors, advertising men, and others.—*The Ambassador.*

GOLD AND PLATINUM AS TONING AGENTS

THEIR VALUE COMPARED

BY A. J. JARMAN

FROM the earliest days of photography gold was used as a toning agent, even before the advent of paper positive prints. It was Fizeau who first employed a solution of gold, added to a solution of hyposulphite of soda, to faintly gild the daguerreotype. This gilding or toning of the deposited mercury becomes much more brilliant than any daguerreotype had ever been before, at the same time it added to their lasting qualities. The gilding of the daguerreotype must not be confounded with the toning of a silver print upon paper, because in the one case there is in reality a deposit of gold upon a metal surface, which is a true process of plating, by depositing gold in a metallic state; while in the case of a paper print, it is an organic compound of silver that has to be dealt with, in which case the gold is implanted by a chemical process of substitution. This is why a silver print becomes lighter during the process of toning. Gold is a trivalent element, while silver is a monovalent element. One atom of gold is capable of displacing three atoms of silver, hence the reason for making the print darker in the first place. That gold toning adds to the permanency of a print does not admit of doubt, and that gold is actually deposited in the toning process by substitution can be proven by taking a gold-toned silver print and bleaching it to the limit with a solution of bichloride of mercury. By this process it will be found that the image *cannot* be entirely gotten rid of by the action of the bichloride. But if the print has not been toned then the image will disappear entirely. The

gold combined with the organic deposit of silver resists the mercurial action. Again, if a gold-toned print be burned to an ash and the ash treated with nitrohydrochloric acid and evaporated, a small drop of the liquid placed into a Bunsen flame before a spectroscope, the tints due to the ignition of gold are readily seen. Again, all gold-toned prints when in quantity are burned to ashes, which are treated by the refiner, and both silver and gold are extracted and the allowence in cash returned for them. Gold is classed as one of the noble metals; it is attacked with difficulty by other elements, hence the more gold that can be made a part of a photographic print, the more likelihood there is of securing permanent images. In the case of platinum we have an element that is even more resisting to the attacks of the other elements than gold, and here again we have a tetravalent element, which means that one atom of platinum is capable of diplacing four atoms of silver. In this case, if platinum is to be used in the toning of silver prints, those prints must be made still deeper than if gold toning alone was employed. This valency of the metals clearly explains why silver prints must be made so much darker when both gold and platinum are used in the toning operations.

Platinum is regarded as one of the most permanent of the elements of which this world is composed; even nitrohydrochloric acid attacks this metal with difficulty. Eighteen years ago the writer made a number of prints upon plain paper sensitized with an acid solution of nitrate of silver; they were printed very deep and toned with chloroplatinite of potassium, acidulated with nitric acid, and they turned out to be prints of exceptional beauty, of a rich black with a faint tint of brown. Year after year has passed, and as each year passed the prints have become more and more brown, until at the present time all the black has disappeared and only a snuff-colored image remains. Not the faintest trace of black platinum remains, only what appears to be a well-near faded silver image.

There is another illustration of gold and platinum toning of collodion paper, where these prints, too, have faded considerably in the past ten years, and many of them in less time; neither the gold nor the platinum have held them proof against the various elements. A stronger instance than this can be given that came within the experience of the writer. A vignette print was made upon a commercial collodion paper; the print was made very deep, toned in gold, washed well and toned again with potassium chloroplatinite and phosphoric acid, fixed and washed well. The film was stripped from the paper and transferred to a porcelain plaque to be burnt in. The process was skilfully carried out, and the finished enamelled plaque looked elegant. In the course of a few weeks the print showed signs of fading, disappearing in fact, and at the end of six weeks the print had entirely disappeared. The writer has never been able to ascertain the real cause of this. With the experience of platinum-toned silver prints fading to comparative shadows, and the double-toned burned-in enamelled plaque disappearing entirely, proves that there is some underlying principle that deserves a thorough investigation. Even if a trace of hypo should be left in the prints that ought not to affect platinum. Whatever the true cause may be, practise in photography has proved that the value of gold toning lies in using gold only in the one case as a toning agent for silver prints, and in the other platinum alone in the form of a platinum print, withstanding the action of time and other influences far better than the combination of this metal with the organic salts of silver or in combination with gold. Some combination of organic salts with these metals appears to be the cause of fading.

By HARRY D. WILLIAR

BALTIMORE, MD.

GOOD BLACKS IN BROMIDE PRINTS

BY R. R. RAWKINS

TOO often do workers who fail to obtain good black tones in bromide prints put the blame upon the manufacturers, whereas, by the observance of a few simple rules, much correspondence can be avoided, and good results obtained every time. Undoubtedly the chief faults are overexposure and underdevelopment, resulting in weak, greenish blacks with poor gradation.

The object of this article is to put in a good word for that deservedly popular developer, metol-hydroquinone. Such a developer, compounded on the lines suggested below, will be found to give good results on all makes of bromide and gaslight papers, also on plates and films.

The exposure for a bromide print should be such that will give perfect results with a development of two minutes' duration at a normal temperature. At the end of the first minute the prints may appear, on the surface, to be fully dark; but, if the exposure has been correct, the second minute's development is merely adding depth or quality of black, and after fixing it is apparent that the prints are of good quality and color.

When the negative is very thin and poor it is not possible to produce good prints on bromide papers, and such a negative should always be printed on gaslight paper, the "contrasty" grade.

A particularly good formula for a metolhydroquinone developer which may be used for all purposes is as follows:

Metol	64 gr.
Hydroquinone	½ oz.
Sulphite of soda	4 oz.
Carbonate of soda	6 oz.
Bromide of potassium	16 gr.
Water to make	80 oz.

For bromides, plates, and films add equal part of water. For gaslight papers only use full strength.

In mixing this developer it is often advised to first dissolve the metol in the water and then add the other ingredients in the order named. The writer has made many hundreds of gallons in the following way: Place all the chemicals in a stone jar and pour hot water over them, stirring until all solids are dissolved. Then add cold water to make up to the total bulk, and bottle off. This developer may appear to be cloudy at first, but when cold will become quite clear and colorless.

The amount of bromide of potassium in the developer is an important factor in the time of development and the results obtained. Some makes of bromide and gaslight papers will fog if the developer is without bromide.

There is considerable variation in the amount of bromide of potassium recommended by different makers for use with their papers, and, generally speaking, it is wise to follow the instructions, but the developer given above works well with all makes of bromide and gaslight papers.

It will be noticed that the developer given is double strength, and for bromides, plates and films, should be diluted with an equal part of water. As regards modifications of this solution, the two most practical are (1) increasing the amount of bromide, and (2) dilution to make a weak-acting developer.

For the former modification it is advisable to make up a 10 per cent. solution of bromide of potassium and put it in a bottle with a slit cork, so that drops can easily be obtained. Increase in the amount of bromide in this developer gives additional contrast up to a point, and of course increases the time of development. It also gives greenish blacks on bromide, and particularly on gaslight papers. The second modification by dilution is useful when printing on bromide paper from hard

negatives, but it is essential to examine the print by transmitted light when judging the depth of development. Generally speaking, gaslight papers should always be developed quickly by a strong developer containing only just sufficient pot. bromide to prevent fog. With the formula given above a gaslight print should be so exposed that development is complete in one minute, and this will give a pure black.

As regards fixing, particularly of gaslight papers, it is most essential to remember that the first minute of a print's immersion in the fixing bath is the most important, and therefore the worker should make a point of seeing that the print is kept moving and well under the surface. Similarly, the first five minutes of the washing is the most important.—*Amateur Photographer.*

PHOTOGRAPHY AS A BUSINESS

BY "PROFESSIONAL"

IT is an old saying that every man is confident that he can do three things better than his fellows, to wit: edit a paper, judge a horse, and manage a woman. To these assumed capacities I would add the running of a photographic business. It is not necessary to move in a wide circle of photographic friends, nor to associate with all classes of photographers, to become aware of the fact that many an owner of a camera aspires sooner or later to become the owner of a photographic business. The photographic profession exercises over the minds of many people a subtle fascination similar to that which draws others to the literary, artistic and dramatic professions. Fortune may have placed these victims of the "camera fever" in excellent positions in some lucrative occupations, far better than anything photography has to offer, yet they forsake all, under the false impression that nature has endowed them with gifts that can only be utilized properly in a photographic studio. In a few instances, perhaps, this call to photography may prove a success; in the majority of cases it ends in disaster. Experience shows that the successful photographer is a result of special aptitude, combined with a long business training. In a good many instances he comes of a photographic family. Skill in professional photography appears to be hereditary; from my own observation I can vouch for several case of the sons of professional photographers having a natural gift for the work. In general, it is such men as these who are at the top of the profession. They do not suffer from the "camera fever." Often enough they dislike photography; but they possess the knowledge of what is good work and the power to achieve it.

Paying for Ideas

Several manufacturing firms both in this country and abroad have made it a rule that any of their workmen may suggest to the management a new method of working or an improvement in machinery, which if adopted will be paid for according to its value. By this means the workman is encouraged to interest himself in his work, thereby becoming a more valuable assistant and increasing the amount of his output. In the conduct of photographic operations there is still room for improvement, and employers might possibly receive valuable hints from assistants concerning the more economical working of studio or printing-room. Printing is still in a backward state, the methods of forty years ago being practised almost unchanged. Both technically and economically there is room for improvement,

which might be accomplished if assistants were encouraged to make suggestions. Many photographic assistants possess an idea for a new process, piece of apparatus, or system of working; and in some cases this is freely put into practice in their daily work. The discovery of such novel ideas is not pursued by photographic employers, and it would be well if the offer of payment should make assistants disclose them to the mutual benefit.

Shop-Window Photographs

Photographs of shop windows taken by daylight are not always satisfactory on account of the reflections from the plate glass and from mirrors and other polished objects in the window itself. To overcome these reflections it has been suggested that windows should be photographed at nighttime when illuminated by artificial lights. With the old style of gaslight this would have been impossible; but now that the electric light, incandescent gaslights, and other illuminants of greater actinic power are used in shops it becomes quite practicable. Few professional photographers have so far taken advantage of the means of obtaining shop windows and interiors, and as the results are so highly successful it might be more generally adopted.

The Sitter vs. the Operator

I have oftentimes heard it remarked, when the comparative merits of the portraiture by different workers has been under discussion, "Yes, B.'s work is first-class, but then look at his sitters; they photograph themselves, and anybody could make pictures of them." There is no doubt some truth in the opinions here expressed, which imply that the more promising material can be made to yield the more attractive portrait, yet it is not the whole truth. The sitter is, of course, either of the difficult or easy type, but I am confident that the pictorial quality of a photograph is made by the operator. That this is so may be readily proved by comparing the portraits of some acknowledged ideal sitter from various studios. How widely they will differ; how manifest it will be from the best of them that the sitter was all that could be desired; how painfully evident from others that the model was poor, and would never make a successful photograph! The man behind the camera had made all the difference. In some cases he had brought out the best qualities of his sitter; in others he had quite failed to see and utilize what would have given refinement and merit to his production. Some photographers, judged by their work, seem to possess a monopoly of perfect sitters, and to my mind the only possible explanation is that they elevate their subjects by means of artistic talent. They seize on the pictorial qualities of every sitter, thus giving their productions a superior and special merit, which at a first glance appears to be a possession of the sitter. To create this impression is the art of perfect portraiture.

Professionals and Exhibitions

In view of what was put forward editorially in a leader a few weeks back I should like to add my quota to the advice then given. Between November and May the leading photographic societies are holding their exhibitions, and so bringing before the public the results of the previous year's work. These exhibitions form an admirable means of judging the position of pictorial photography and of noting if any progress has been made, either in processes or in artistic treatment. In many towns it is the only opportunity the public have of becoming acquainted with the best efforts of modern workers. In the main, the annual local exhibitions are confined to amateurs, and it is the exception, rather than the rule, to see local professionals represented. From the point of view of the members of a society this exclusion of the profession seems entirely commendable, though it is doubtful if the public are of the same opinion. To the majority of persons the professional photographer alone represents photography, and they fail to understand an exhibition from

which he is excluded. A few societies have put themselves in the position of the public with regard to their exhibitions, and have recognized that if they expect public support they must give the public exhibitions which appeal to the general understanding instead of to the photographer alone. It is obvious, I think, that if amateur and professional were to combine in organizing and supporting the annual local exhibition it would become a much more influential event, giving both amateur and professional an important standing in local affairs. To effect such a combination, I am aware that it requires some barriers to be broken down which divide amateur and professional, but when once these are removed it will be found that more is gained by combination than by antagonism between the amateur and professional sections.

The Color of Studio Walls

The color of the interior walls of the studio will have a marked effect on the lighting of the sitter; and, in consequence, this color should be chosen to suite the available illumination. All surfaces reflect light in varying degrees, and can be arranged in order between the most reflective, such as white blotting-paper, and black velvet, the least reflective. The amount of white light per cent. reflected from some common substances is given in the following table from Dr. Sumpner:

White blotting-paper	82.0	per cent.
Yellow wall-paper	40.0	"
Red paper	40.0	"
Blue paper	25.0	"
Yellow-painted wall (clean)	40.0	"
Yellow-painted wall (dirty)	20.0	"
Plain deal (clean)	50.0	"
Plain deal (dirty)	20.0	"
Dark-brown paper	13.0	"
Deep-chocolate paper	4.0	"
Black cloth	0.4	"

From this it is seen that a white surface will reflect 82 per cent. of the light falling upon it. Thus, by its use as a reflector, the illumination in a studio can be almost doubled. A white surface is too highly reflective for studio purposes, it being more convenient to have the walls a medium color, obtaining high reflection, when necessary, by means of white screens. Red paper, it is seen, reflects 40 per cent. of ordinary light, while blue paper reflects but 25 per cent. The reflective power of the red paper, however, is mainly for the red rays, which it may reflect to the amount of 80 per cent., absorbing, perhaps, 90 per cent. of all other rays. A dark-blue paper may, therefore, reflect a higher percentage of actinic rays than a light red. The reflected light in a studio will thus tend to be of the same color as the walls. Reds, yellows, and all non-actinic colors, however light, should thus be avoided, the exposure and illumination being as well helped by dark blues without making the studio seem glaring.

Pictures or Portraits

The fashion in portraiture has for some time past inclined toward what is known as the "picture portrait," this being a production in which fidelity of likeness is subordinated to considerations of artistic merit. As a thing of beauty, and apart from any question of likeness, the picture portrait is a great advance on the "usual thing"—that hard, material, commonplace style of portraiture which was for so long the mark of the professional. Happily, this purely scientific portraiture, that was nearly always a bare record of the features of a sitter, has given place to work of a more refined and artistic nature, which combines a faithful likeness with pictorial merit. So far professionals have not gone to extremes with the "picture portrait," and if anything their pictures are still truthful as likenesses. Among amateurs this hold on truth to nature is not so firm, they preferring to sink something of the individuality of their subjects should it be likely to mar a pictorial composition. These highly artistic photographs are much admired by persons who do not know the models, but are not always so favorably received when their dearest friends are the subjects. The fact is that in photographs of those they know well people require a characteristic and realistic likeness,

and to secure this will sacrifice every art principle. Thus, it is not advisable for the professional photographer to suppress the personality of his subject, but rather to concentrate his efforts on obtaining a true likeness, which is at the same time pictorial. His policy is to steer a middle course beteen the "picture portrait" and the "usual thing."

Free Sittings

There are certain abuses prevalent in photography which have existed for many years. These from time to time are brought to our notice, and after fruitless discussion sink again into obscurity, and continue for want of a remedy. One of these is what goes by the name of "free sittings," and is a business practice which cannot be described as anything but unfair competition. Against legitimate competition no business man can object, but he has a right to protest when competition takes the form of underselling, price cutting, or of trading on the ignorance of the public. A "free sitting"—meaning thereby that a person is to be photographed and given so many copies free of all charge—is only so in name, and not in fact. Common sense at once tells us no class of goods can be supplied for nothing, and therefore that the photographs, if not paid for directly, are paid for indirectly. The "free sitting" practitioner looks for his remuneration in one of two ways—either in the supply of extra copies or in the possession of valuable copyrights. The person approached with a view to a "free sitting" is not always able to discern the real facts of the case, and it is upon such ignorance that the trade flourishes. It is obvious that such a method of conducting business puts the straightforward professional in a precarious position, since it tends to take from him a legitimate profit and lowers the accepted prices. The only remedy is to enlighten the public, and bring home to them the fact that "free sittings" are only a business trick to capture copyrights or force the sale of extra copies.

Assistants' Specimens

Another grievance of long standing is the non-return of assistants' specimens sent to employers when applying for a situation; and so far, like the poor, it has been always with us. To an assistant the loss of his specimens is most serious, as it may mean an absolute inability to find employment. In general, the assistant has but one set of specimens, for it is not customary for employers to supply them without limit. Knowing this, an employer who deliberately purloined them would be guilty of a most despicable offense. Such wilful detention of specimens is, from my experience, extremely rare, and the complaints against employers arise mostly from carelessness and a want of system in both receiver and sender.

Investigation of several cases a few years ago revealed the fact that the offending employers were men of high standing, to whom the specimens were of no value, their return being a matter which had been overlooked or delayed in the press of business. In many cases of the non-return of specimens the assistants are themselves to blame. I have on several occasions had to deal with parcels of specimens, and every time have had great difficulty in keeping them in order, because some were not marked with the assistants' names and addresses. In consequence, when the outside wrapper was removed, there was nothing by which the owner could be identified if once his accompanying letter was misplaced. And letters sent with articles are very easily misplaced. Complaints of the non-return of specimens would soon cease if only assistants would write their names and addresses on every picture and enclose with them an addressed, stamped wrapper.—*Photography.*

TREATING PRINTS TO PREVENT CURLING

BY L. C. BISHOP

DEVELOPING paper is now so generally used by the majority of photographers that it seems more should be done to make the prints retain a presentable appearance. If the paper were made with a coating on the back which would draw equally with the face side there would be no occasion for this article; but unfortunately photographers and paper makers have so far neglected to notice, sufficiently, the dissatisfaction among customers through the curling and warping of all D. O. P. prints which have not been coated (on the back) or backed with the paper made for this purpose.

My experience has taken me into many homes since D. O. P. became popular and there we see how well photographs look after the purchaser uses them for a while. At first D. O. P. was not a general thing among old-established photographers, nor was it with the more experienced amateurs. But now, since there are softer working papers and much better qualities, nearly every photographer sells at least a portion of his work printed on gaslight paper.

In hundreds of the homes where I have made sittings I have seen examples of this curling and warping that would make any conscientious photographer regret his careless or thoughtless neglect to make his work hold up. In some cases these D. O. P. prints were so bent together that it was difficult to see the picture unless you opened it up as one would a roll. In folders they warp so that the cover stands half open and the support is all out of shape. No photographer would deliver work which looked like this, but the truth is this is what we find in homes where D. O. P. has been sold, and those who have paid for such prints feel much as one does when he buys a hat or suit that does not hold its shape.

To remedy this curling and render the print permanently flat, the back of the print must be coated. All glycerine preparations retain dampness and in time cause the print to spot with mildew, so it would be of no use to waste time on anything unless it were durable and also resulted in the customer's satisfaction.

Photographers who complain of a falling-off in duplicate business will find one of the chief causes is the untidy appearance of his prints after they have had ordinary use, for a little while, in the customer's home. Very few people will voice their disappointment to the photographer but they all show the prints to their friends and comment upon their appearance. This is not conducive to a duplicate order, for no one wants a picture that looks as untidy as a suit that needs pressing.

For several years I advertised my method of treating prints to prevent curling. Although the price was 35 cents the returns have been just about enough to pay the advertising expenses, which shows that comparatively few photographers realize how important it is that their prints stay in good shape after being delivered. So I have decided to publish the method, in hopes it may thus reach a greater number of photographers and perhaps call their attention to the real importance of having their prints look well after they leave the studio.

The best, easiest and cheapest way to prevent prints from curling is to coat the backs with white of egg. This sounds so simple that it is often taken as a joke, but there is quite a little work attached to doing it right. However, one's efforts are well repaid. I have tried everything advertised and suggested by others but have never found anything so simple and yet so effective in the permanent result.

The white of egg is made ready by

separating it from the yolk and straining it through a thin cloth. The cloth is wet up and the egg white forced through the meshes by hand. Make a temporary bag of the cloth, pour in the egg and press it through by twisting the ends of the bag with one hand and pressing down with the other. In this way the albuminous fibers are separated and can be easily spread over the surface of the paper. Using an ordinary rubber-bound paste brush, coat the backs of the prints, much as you would for pasting when mounting solid. Care must be taken to keep the egg from getting upon the face side of the print for the air would soon cause lumps to dry, so special preparation should be made and the work done carefully.

To Prepare Prints for Coating

Take the prints from the wash water or soak up any dried ones to be coated and place them on the mounting slab or table in a stack. Place a sheet of plain wrapping paper between each layer of prints, which are laid so they do not overlap one another. When all are stacked the surplus water should be pressed out by running the squeeqee over the pile. Blot off the backs and coat on the egg in practically the same way you would apply mounting paste. As fast as the prints are coated lay them out on a stretcher, face down, first glancing at the face to see if any of the egg has accidentally been daubed upon it. If discovered immediately it can be readily removed by a sponge dipped in clean water.

The prints on the stretcher are allowed to surface dry, and these are placed in blotters, under pressure, and changed several times until dry. Should any become bone dry do not try to straighten them but plunge them in water and blot off quickly, when, in a moment or two, they may be put in the blotters.

After treating a few batches of prints this way one will find it so easy that the extra process will seem to occasion no additional work, and the prints will not curl or warp any more than a piece of plain, heavy paper.

BROMOIL

BY HECTOR MURCHISON

IT could not have been long after the moment when the photographer took his camera in his hand, and said, for the first time, "I should like to make a *picture* with this!" that he became conscious, vaguely perhaps, that intention without control (not to mention other things) was insufficient. Experience afterward more than hinted it was a tortuous course to a doubtful end.

Whether control is attempted by local intensification and reduction of the negative (blacklead and papier minéral) or by local intensification and reduction of the print (excess of ink and use of india rubber), differs not at all from the moral standpoint. But there is this great practical advantage in dealing directly with the print: there is no step between the means and the end; the effect of what we do, whether good or bad, is immediately obvious.

Gum and, in a less degree, ozotype gave latitude and facility. Gum, however, except with a few, produced results incommensurate with the meticulous care and immense labor spent. Ozotype was exceedingly difficult, provokingly uncertain, and the amount of control possible with it was limited. Gum, with the majority, was Hobson's choice. They stuck to it, because of its kind it was the best to be had.

To the photographer tired of his sand-paper-like gum prints, longing for a quicker means to his end, a more dash-

ing way of attacking his pictorial subject, bromoil was a weapon placed in his hands at a most critical and useful moment. It is not too much to say that it decided another step forward on the part of pictorial photography.

There is an uncertainty about all photographic processes, varying with the skill and experience of the worker, which is one of their tantalizing attractions. You must not every time expect a success. Bromoil is, at one and the same time, more certain and yet less so than gum and ozotype. That is to say, if you realize that, like collotype, it is at times distractingly sensitive to some malign influence—call it climate or call it witchcraft—and have the patience and the strength of will to wait for a change in the weather, or to exorcise the devil, you will be able to pursue your bleaching and inking with a serene and confident mind.

Every sheet out of a packet of bromide paper will periodically give you good bromoil prints. Another time nothing but smudges. The gelatine seems soft and sticky, and the relief image to have lost its automatic influence over the destination of the pigment. The greasy ink stumbles about in a slipshod way all over the surface, and exhibits no healthy disposition to speedily settle down in its appointed places. It positively shuns those parts where it is wanted, or it may stay there for a time and then leave them for the brush, or for the high lights. This has nothing to do with the manufacture of the paper, because paper from the same packet will one day give good prints, and another day bad ones; but it has invariably been noticed that on a particular day, if the first print is a failure, the rest will follow suit. When this is the case, it is better to put bromoil on one side until the spell is broken.

If there be any safeguards at all, they lie in methodical care and uniformity of practice. An even temperature of the washing water should be maintained. Various workers differ as to what this should be, but 70° is neither too hot not too cold.

A gray bromide print will ink up more easily than a rich black one. Use a weak developer; say amidol, ½ grain; sulphite of soda, 10 per cent., 1 dram; water, 1 ounce. Let the print dry before bleaching, and, if convenient, between bleaching and pigmenting.

Pages have been written to describe the action of the brush in inking up. It might almost be stated in one word —dabbing. Yet it is not exactly a simple punching at the paper. There is a slight curving, perpendicular movement as the brush descends, the toe of the brush being used more than the heel. Generally speaking, the impact should be staccato.

There is such a choice of pigments obtainable at the shops that there should be no difficulty in procuring a color to suit each taste. Should it be desired, however, to prepare one's own, there is no disadvantage in doing so beyond the extra time it takes. It is advisable to mix only sufficient for the work in hand. Two separate consistencies should be made, one of color and medium lithographic varnish, procurable at any lithographic materials maker, and the other of powder and lard. Both should be fairly stiff.

The two mixtures should be blended as required. Imagine you are using a metol-quinol developer, the lard mixture being the metol, giving softness and detail, and the other, the hydroquinone, giving strength and contrast. Too much metol will give flatness and muddiness; too much hydroquinone, hardness. Too much lard, moreover, will prevent the print from drying quickly. The varnish mixture should always be in excess of the other. In any case artificial heat is a great advantage, if available, for drying the print before mounting.

After all is said and done, there is no royal road to bromoil. The brush action is instinctive in some, in others no perseverance will ever produce it. If the facility does not come after, say, a month's constant practice, it is unlikely ever to be acquired.

And even then, if it be acquired, and there should be lacking any conception as to how, when he looks at his unbleached print, he is going to apply his gift, then a man had better leave bromoil alone.—*Amateur Photographer.*

NEGATIVE DIAGNOSIS

THE photographer who can examine his negatives as they come from the fixing bath and determine the accuracy of exposure and development, has gone a long way toward the making of uniformly good negatives. For the purpose of classification, assume that there are three degrees of exposure and three stages of development, which give nine distinct classes of negatives. Every negative in a studio belongs to one of these classes. The nine classes are as follows:

1. Under-exposure and under-development.
2. Under-exposure and normal development.
3. Under-exposure and over-development.
4. Normal exposure and under-development.
5. Normal exposure and normal development.
6. Normal exposure and over-development.
7. Over-exposure and under development.
8. Over-exposure and normal development.
9. Over-exposure and over-development.

Now look at the characteristics of the negatives of each class and the means by which they may be improved in quality before printing. The amount of detail in the deep shadows always determines the exposure, and the strength or opacity of the high light determines the development.

In the first three classes, the lower tones and shadows will be void of detail. This can only be corrected by making a new negative and giving the proper amount of exposure. The high lights in No. 1 will be too thin and should be intensified if the negative must be used, In No. 3 the high lights will be too dense and so clogged that no detail can be secured without first using a reducer. In No. 2 the high lights will be correct and it will not be possible to improve the negative by after-treatment.

The negative in Class 4 will have detail throughout but will be weak and flat, having had only surface development. The negative in Class 6 will have sufficient detail in shadows but will be so clogged and dense in the high lights that gradation is ruined by excessive contrast from over-development. No. 4 negative can be greatly improved by intensification, which will increase the contrast, but No. 6 requires reduction to give softness. The negative in Class 5 will be full of detail and possess a perfect scale of gradation. It will be brilliant but not hard—soft but not flat. This is the perfect negative.

The negative in Class 7 will be much the same as No. 4, but there will be too much detail in shadows, and, as a consequence, even more flatness. No. 8 will resemble No. 7, only the contrast will be better. No. 9 will have detail throughout, with sufficient contrast and balance, but altogether too much density.

Such a negative will make a good print but will be a very slow printer. The remedy for Nos. 7 and 8 would usually be intensification—for No. 9, reduction, although in the case of No. 8, the degree of contrast and density will determine whether the negative should be intensified or reduced.—*Professional Photographer.*

EDITOR'S TABLE

COME to us, Christmas, good old day,
Soften us, cheer us, say your say
To hearts which thrift, too eager, keeps
In bonds, while fellow-feeling sleeps.
Good Christmas, whom our children love,
We love you, too! Lift us above
Our cares, our fears, our small desires!
Open our hands and stir the fires
Of helpful fellowship within us,
And back to love and kindness win us!

Edward Sandford Martin.

Greeting

THE return of the holiday season brings all good-feeling folk the opportunity to exercise anew the good old-fashioned qualities—friendship, kindness, sympathy, love, cheerfulness, courtesy, patience, and liberality.

If the inhabitants of another world wished a photograph of ours, it were surely wise to have the picture taken in December, for then as "folks" we are at our best.

"Everybody look pleasant please."

Taking advantage, then, of the season when goodwill can be expressed without explanation or apology, we wish you a happy journey through the undiscovered country of 1915—a trip for which you doubtless are arranging at this time.

May every "Once More" that the new year brings you be met and utilized as you would wish when it has become a "no more"—when it has passed forever.

To grown-ups there is really little novel about the Christmas Holidays. Business people especially seem to need personal notice of their near approach. Fortunately, children, who are the real makers of Christmas, can give this in a way that seldom fails to take.

Regardless of how we learn it, the year is at its end and the Holidays are here again with their smile. Happy the heart that sees in its Christmas notice no "must" but rather the door to many opportunities — the chance to give pleasure and show kindness once more.

A Personal Word to Our Subscribers

THIS magazine is, first and last, for the practical photographer who is *seeking* success with a desire to help him in his daily work to do *better* photography. We plan to give our readers for next year a greater feast than ever before in the long and useful history of Wilson's. Ryland W. Phillips will contribute a notable series on "Practical Talks on Studio Work" and the popular special numbers on "The Work of Well-known American Photographers," profusely illustrated, will be continued. Every phase of photography, artistic, technical, and commercial, will be practically and thoroughly treated by the ablest exponents in each particular field. Carefully selected illustrations, items of general interest in the photographic world, newsy paragraphs on the latest and best of everything in the way of photographic goods, apparatus and literature—all these will be regular features for Wilson's 1915.

During the present month a great many of the suscriptions to the Magazine expire. As the majority of our readers renew their subscriptions from year to year, it has long been our custom on the expiration of a sub-

scription to send a bill for the ensuing year. On receipt of such a bill the subscriber is expected to remit for the period of time for which he desires his subscription renewed, or to notify the publisher of his intention in the matter.

Subscribers, therefore, who receive a bill for the renewal of their subscription will confer a personal favor by responding as promptly as possible. This will not only facilitate our work, which is always heavy at this season, but will insure that the subscriber will receive all the numbers of the MAGAZINE regularly as published. Several of the recent numbers of the MAGAZINE have quickly gone out of print, and the demand for copies increases month by month. Hence we cannot guarantee regular service except to those whose subscriptions are prepaid, such subscribers naturally receiving our first care and attention.

Knowing from experience in attempting to buy back copies after publication that our subscribers value the MAGAZINE and preserve their copies for reference, we suggest that all who are awake to their own interest should promptly renew their subscriptions, and so keep their file of the MAGAZINE complete.

A "STANDARD OF PRACTICE"

ADOPTED at the last regular meeting of the Photographic Publishers' Association of America.

1. To consider first, the interest of the subscriber.

2. To subscribe to and work for truth and honesty in all departments.

3. To eliminate, in so far as possible, his personal opinions from his news columns, but to be a leader of thought in his editorial columns, and to make his criticisms constructive.

4. To refuse to publish "puffs," free reading notices or paid "write-ups," to keep his reading columns independent of advertising considerations, and to measure all news by this standard, "Is it real news?"

5. To decline any advertisement which has a tendency to mislead or which does not conform to business integrity.

6. To solicit subscriptions and advertising solely upon the merits of the publication.

7. To supply advertisers with full information regarding character and extent of circulation, including detailed circulation statements subject to proper verification.

8. To coöperate with all organizations and individuals engaged in creative advertising work.

9. To avoid unfair competition.

10. To determine what is the highest and largest function of the field which he serves, and then to strive in every legitimate way to promote that function.

With the desire to dedicate our best efforts to the highest service of our subscribers and advertisers, the publishers of this magazine subscribe to, and indorse, this Standard of Practice.

DO IT NOW

THE close of the year has come to be looked upon as a time to make new resolutions and to lay out plans with which to start on the new year. If this old-time custom is to prevail among photographers, the writer believes that no better resolution can be made for the new year than the determination to lay aside on the first day of January a certain, definite amount of money for the express purpose of exploiting the business of the studio during the succeeding twelve months. If some such definite plan as this be adopted and the appropriation religiously held for the purpose to which it is dedicated, the photographer may look for something positive and tangible from his advertising campaign. Unless such a course is pursued he will continue, as he has done in the past, to advertise spasmodically and ineffectually, if at all, with the result that his business will continue in the same old lines or possibly be wiped out by some bright and energetic newcomer with a larger appreciation of the necessity of publicity;

Procrastination has been a fault in our business for many, many years and it is easy to promise one's self that certain reforms shall be instituted next week or next month. The proper time to institute reforms is the present, and when it becomes apparent in any business that a change is desirable procrastination means a positive loss of money value to that business.

It is a matter of common practice in the fraternity to "blow in" more or less of the proceeds of the holiday work each year. This custom seems to form a part of the business regime in very many of our studios. If, however, this amount alone or even a fair proportion of it can be laid aside for the publicity of the studio during the next few months, a marked improvement in the business of the studio will result. Why not start the new year with the definite purpose of spending a specified amount of each month's income for the advertising of the studio, counting it as one of the regular stated expenses, just the same as rent, fuel, or

light? Let the policy to be followed in the expenditure of this money be carefully thought out, so that every advertisement shall be made to count to its best advantage. Before the winter's business is completed the outlay will cease to have been felt as a burden. The impetus that such a policy will give to the work of the winter and spring ought to be felt well into the summer. When the dull times come the advertising should be framed to create a demand for special work to serve as a filler-in; such, for instance, as the copying of old and faded pictures and daguerreotypes, enlarging and finishing in special types, or the working up of orders from old negatives, which in many cases can be made to pay a good profit on the cost of storage and indexing. All of these things will be treated of in detail later on, but the whole policy of advertising should be framed with the view of exploiting different classes of work at different seasons of the year, when they can be fitted into the routine of the work of the studio to the best advantage.

Get the public into the way of expecting a new announcement each week and it will be found profitable. The announcement of one week will have direct interest to a certain limited number of its readers, while that of the next will touch a totally different class, and so on during the year. Every field of the studio business should be covered during the fifty-two weeks, and every possible change rung on the preparation of the announcements themselves. The thought that presents itself for the immediate future, and one which should gradually be led up to during the next few weeks, is that of Easter, and the studio with an advertising policy will see to it that its advertising matter is framed with reference to the Easter season as the children's season. A careful selection should be made of the best child pictures of the last few months for grouping and exhibition before the Easter season. As a special Easter possibility, there is good business in this, as many a photographer knows, and there are many photographers who follow this plan every year. Invitations may be issued to attend this reception or it may be announced by booklets or by regular newspaper advertisements. It may, however, be simply exploited by word of mouth from customer to customer; but an exhibition should be made along these lines, and there is scarcely a studio in the country doing any kind of business that may not make it pay.

In all work executed during the winter it will be well kept in mind the thought that occasion will probably arise later on for one or more choice specimens for half-tone reproduction. Keep this thought always in mind, and in making sittings try to arrange for permission to use one or more if required. They will have value as illustrating the quality of work you are turning out. Two or three dainty child pictures prepared with special reference to this purpose should always be available for newspaper cuts, or better still, for special announcements for distribution at different seasons and in various ways. Pictures of this kind are impossible to get in a hurry, and should therefore be prepared in advance for emergencies.

TRANSLATIONS AND ABSTRACTS

E. J. WALL, F.R.P.S.

Ultra-violet Photomicrography

G. Josef describes some of the results obtained with the use of the ultra-violet rays and the monochromat objectives. The light is obtained of the wave length 2750 from cadmium electrodes with a current of 10,000 volts and passed through two quartz prisms and then to the scope, all optical parts of which must also be made of quartz, as must also be the slide and cover glass. By means of such an arrangement Kruis has obtained negatives showing cells in bacteria and the structure of living cells of all kinds while the same are alive, thus doing away with the staining and other preparation of the ordinary micro slide. There is said to be a great future before this and it is likely to considerably alter some of the accepted views.—*Wien. Mitt.*, 1914, p. 431.

Marble as Substitute for Opal Glass

Dr. Pfaff has discovered how to cut marble into plates of a thickness varying from 0.1 to 0.5 mm. ($\frac{1}{25}$ to $\frac{1}{5}$ inch) and these are protected from fracture by enclosing between glass plates. H. W. Engel has gone one better and has discovered how to make thicker marble

sheets more transparent. The marble is cut into plates of from 3 to 20 mm. thickness and then under great pressure impregnated with certain oils. The result is that they become more transparent than opal glass, and as they do not absorb so much of the ultra-violet rays and absorb considerably more of the heat rays they should be useful for enlarging with artificial light sources and do away to some extent with condensers.—*Wien. Mitt.*, 1914, p. 441.

Increasing the Sensitiveness of Collodio-chloride paper

M. Schneider states that if collodion paper or gelatine be immersed in a 1 per cent. solution of ammonium nitrate in artificial light, that the sensitiveness is enormously increased. If 1 per cent. of ammonium nitrate be added to collodio-chloride emulsion, and this must be done by red light, the sensitiveness is so increased that paper coated therewith only requires an exposure of from ¼ to ½ second at a distance of 30 cm. (12 inches) from a petroleum lamp. Paper thus treated can be developed and gives warm brown to warm blacks.—*Phot. Ind.*, 1914, p. 998.

The Human Skin in Different Lights

Michaud and Tristen have been examining the results of illuminating sitters with lights of different wave-lengths, and find that violet and ultra-violet rays give a much darker appearance and show far more spots and freckles than the red rays. The latter do not show up freckles and give the flesh a much lighter tint; the infra-red rays make the ordinary face look like marble. From this it is an open question whether the curtains and hangings in a studio should not be red rather than blue as now generally used. Red hangings would slightly lengthen the exposure, but as they would also increase the exposure one could afford a little more light to soften the same and thus compensate for the increase of exposure.—*Frank. Umschau.*, 1914, p. 514.

In Place of Varnishing

Numquam states that he has found that treating the negative with the following bath entirely does away with the necessity of varnishing; that even if water be actually split on the negatives, it can be wiped off without showing any marks:

Alum . . .	125 gm.	4	oz.
Tannin . .	9	140	grs.
Water . . .	1000 c.c.	33.81	oz.

The negatives should be immersed in this for not more than four minutes, otherwise the film gets too hard and has tendency to crack. It may be used repeatedly.—*B. J.*, 1914, p. 713.

Red Tones on Developed Prints

G. F. Saunders recommends the following bath for obtaining red tones on developed prints which have been previously toned in the hypo-alum bath:

Gold chloride .	1 gm.	15.5	gr.
Water . . .	1000 c.c.	33.81	oz.
Ammonium sulphocyanide .	10 gm.	155	gr.
Hydrochloric acid . . .	10 c.c.	160	min.
Salt . . .	10 gm.	155	gr.

Dissolve in the above order. Wash the prints thoroughly and them immerse in the above. Toning is somewhat slow, taking about ten minutes to produce a bright red.—*B. J.*, 1914, p. 713.

Artificial Aurora Borealis

Birkeland has propounded the theory that the celestial bodies emit corpuscles, radiations or electrons and he has been able to reproduce similar phenomena in the laboratory. In a vacuum he placed a small "terella," which consisted of a small electric ball with an iron core, the surface of which was coated with barium platinocyanide, which has the property of phosphorescing under the cathode rays. As long as no current was passed through the ball there was no phosphorescence; but as soon as the ball was electrified there was immediately a sharply defined blaze of light simulating in all respects the natural phenomenon. Stoermer has proved mathematically that this is actually what occurs in nature and that the Northern lights are caused by the attraction of the magnetic field of the earth attracting the cathode rays emitted by the celestial bodies and that these cause the upper stratum of the air to light up.—*Wien. Mitt.*, 1914, p. 393.

Brown and Red Toned Transparencies

Namias states that he has for years recommended the fixation of slides toned with copper and uranium as they are much more transparent and more permanent, and for copper toned images any fixing bath may be used, although one with an addition of boric acid is preferable. For uranium-toned slides the following is the best:

Hypo . . .	200 gm.	3100	gr.
Sodium acetate	50 gm.	775	gr.
Water . . .	1000 c.c.	33.81	oz.
Acetic acid .	10 gm.	155	gr.

This bath is also suitable for slides toned with ferricyanide and iron salts. Although there are chlorobromide plates on the market which are supposed to give warm tones with prolonged exposure and developers containing plenty of bromide, only indifferent warm-brown tones are obtained, and such plates are generally very poor in silver chloride and contain more silver bromide which is in an unripened state and the tones are not satisfactory. Such plates are good, however, for subsequent toning and the best way is to convert the image into silver chloride by immersion in the following bath:

Copper sulphate	10 gm.	155	gr.
Salt . . .	20 gm.	310	gr.
Water . . .	1000 c.c.	33.81	oz.

The image rapidly bleaches in this and should be well washed and then exposed to white light and redeveloped with

Pyrocatechin, 2 per cent. sol.	1 part
Potassium carbonate, 10 per cent. sol.	1 part
Water	6 parts

In this the image turns first red and gradually darkens and if development is prolonged it will become finally as black as at first. If development is stopped when the image is a warm red brown it will not be permanent, but it can be fixed with sodium sulphite. Far better than the above is the following:

A.

Metol	5.0 gm.	77.5 gr.
Hydroquinone	2.5	38.75
Sodium sulphite	250.0	3875.0
Sodium carbonate, dry	20.0	310.0
Water	1000.0 c.c.	33.81 oz.

B.

Ammonium carbonate	100.0 gm.	1550.0 gr.
Ammonium bromide	100.0	1550.0 gr.
Water	1000.0 c.c.	33.81 oz.

For use mix 1 part of A, 1 part of B, and 3 parts of water. This gives reddish-violet tones that are very similar to those obtained on printing-out papers, but if the quantity of B solution is increased warmer tones are obtained. After this redevelopment the plates should be fixed in a 5 per cent. solution of hypo. This process does not give such good results on papers.—*Phot. Korr.*, 1914, p. 291.

Namias must have a very limited experience of chloride and chlorobromide plates to make the statement that they are principally composed of unripened bromide emulsions.

Syrup in Developers

J. C. W. states that he has found that the addition of golden syrup to a developer is better than the addition of bromide to prevent fog and stains. He recommends specially:

Metol	5.0 gm.	77.5 gr.
Hydroquinone	4.0	62.0 gr.
Sodium sulphite, dry	24.5	379.75
Sodium carbonate	66.0	1023.0
Potassium bromide	2.0	31.0
Water	1000.0 c.c.	38.81 oz.

Mix half an ounce of this with ten ounces of water and add two large teaspoonfuls of golden syrup. For bad underexposure he finds that excellent negatives are obtained by leaving the plates in this all night.—*B. J.*, 1914, p. 777.

Golden syrup is cane-sugar syrup. Probably it has no specific virtue and anything that would make the developer more viscous would act just as well. This idea is very old and it is also very doubtful whether it has any particular virtue.

The Satista Patent

The English patent for this paper has just been published. The paper is first treated with potassium chloride and silver nitrate, the former being in excess so as to ensure the complete conversion of the nitrate; 5 per cent. solution of each salt is used and the paper washed to remove the soluble salts, or an emulsion may be made of the silver chloride and applied to the paper in the usual way. A second coating of ferric oxalate solution containing more or less of potassium chloroplatinite. The quantity of the latter may vary from 1 to 6 grams to every 500 c.c. of the normal ferric oxalate solution. After exposure the print is developed in a 1 to 4 solution of potassium oxalate and cleared in

Potassium bisulphate	30 gm.	465 gr.
Potassium oxalate	5	77.5 gr.
Water	1000 c.c.	33.81 oz.

then well washed and fixed in a 10 per cent. solution of hypo.—*E. P.*, 20022, 1913, *B. J.*, 1914, p. 777.

Pressure Marks

Lueppo-Cramer has investigated the action of potassium iodide in the developer as a remedy for pressure marks, and comes to the conclusion that its sole action is to slow the appearance of the fainter latent image and incidentally it acts in the same way on the faint pressure image. Too little iodide increases the rapidity of the appearance of the faint latent image and also the pressure marks, but a preliminary bath of 1 per cent. of iodide is the best to use, as a greater concentration also holds back the fine details in the high lights of the image.—*Phot. Korr.*, 1914, p. 361.

Increasing Contrasts by Intensifying

Namias suggests that to increase the contrasts in a negative it should be first treated for a short time with

Potassium bichromate	2 gm.	31 gr.
Hydrochloric acid	5 c.c.	80 min.
Water	1000 c.c.	33.81 oz.

In this bath the negative should be left till the surface only of the negative has been bleached and then well washed and treated with the usual mercuric chloride solution and intensified in the usual way. The idea is that the superficial conversion of the image into silver chloride prevents the deposition of mercurous chloride and that therefore as the high lights are partially converted into the mercury salt they are more intensified than the shadows.—*Phot. Korr.*, 1914, p. 365.

Anaglyphs

Dr. Ritter von Schrott states that he has found that the most satisfactory method of making anaglyphs is as follows: Two stereo negatives

are required and as a rule the separation of the lenses should not exceed 65 mm. for artistic work, but for still life this may be exceeded, when plasticity of the image is more important than actual verity. Of all photomechanical processes collotype is the best and the printing inks of Meister, Lucius and Bruening are the most satisfactory, the following being the formulas for the preparation of the inks:

RED INK

Aluminum sulphate, 18 per cent.	10 kilos
Water	100 liters
Calcined Soda	5 kilos
Water	50 liters

Mix and wash the precipitate well and add

Lack red C extra, paste	15 kilos

Made up into a paste with water.

GREEN INK

Aluminum sulphate, 18 per cent.	10 kilos
Water	100 liters
Calcined water	6 kilos
Water	60 liters

Mix and wash the precipitate well and add

Hansa green G.	3 kilos

Stir this into a paste with a little water and then add about

Water	300 liters

Boil till dissolved and then precipitate with

Hydrochloric acid com. (20 Bé.)	2.5 kilos
Water (40° C.)	25 liters

In order to make the spectacles to view these images, plate glass should be coated with dyed gelatine in the proportion of 7 c.c. to every 100 square centimeters of glass. The dyes used for the spectacles may be made according to the formulas of Dr. Koenig:

STAINED GELATINE FOR RED

Gelatine	6 gm.
Distilled water	100 c.c.
Rapid filter red 1.5 per cent. sol.	20 c.c.

STAINED GELATINE FOR GREEN

Gelatine	6 gm.
Distilled water	100 c.c.
Filter blue green 2.5 per cent. sol.	20 c.c.

Von Schrott finds that far better results are obtained by replacing the green dye with a blue, and he suggests that

Patent blue	2 gm.

should be used in place of the filter blue green. Apparently it is immaterial to adhere to correct separation of the individual color prints and an increase to correct separation by one or two millimeters is of no moment; much more important is that the green print should not be printed too deep or then double images are at once seen.

Some New Sensitizers

R. Ring has studied the formation of some new homologues of ethyl red and their sensitizing action on dry plates. Eight new isocyanines have been prepared and examined, being used in concentrations of 1 to 25,000, 1 to 50,000, and 1 to 100,000. The plates were exposed after bathing in a diffraction spectrograph and the densities plotted by means of a Marten's photometer. Practically two sensitizing maxima were found, one at wavelength 530 in the green, and the other at 580 in the yellow orange. Beyond this point begins the more or less steep drop in sensitiveness in the red. As regards the chemical composition of the dye it appears that those isocyanines containing two methyl groups were of less tinctorial power than the corresponding monotoluisocyanines, and that the para compounds are stronger than the meta. For the two para dyes the optimum concentration 1 to 50,000, for metatoluisocyanin 1 to 25,000. On the other hand the meta compounds sensitize better than the para compounds, as the curve of density between 450 and 590 is very even and the minima at 500 and 550 only very little. The action extends also far beyond that of ethyl red and p- tolu- isocyanin, the latter gives very great density at 580 but the minimum at 500 is very marked, so that they present no advantage over ethyl red.

If the position of the methyl group as regards the sensitising action is considered, the methylation of the chinaldin ring gives greater general sensitiveness.—*Phot. Ind.*, 1914, p. 1050.

Simultaneous Development and Fixing

Valenta has been experimenting with this and using pyro as the developing agent and finds that the following is the best formula:

	A			
Pyro	12.5	gm.	193.75	gr.
Sodium sulphite	80.0	gm.	1240.0	gr.
Water	500.0	c.c.	16.9	oz.
	B			
Caustic soda	8.0	gm.	124.0	gr.
Water	500.0	c.c.	16.9	oz.
	C			
Hypo sol. 20 per cent.				

For use, mix A (40 parts), B (40 parts), and C (35 parts). The image appears immediately and development is finished in about three minutes and fixation in about seven minutes. He comes to the conclusion that the process is of no practical value in ordinary work as it requires longer exposure and there is no saving of time.—*Phot. Korr.*, 1914, p. 347.

Replies to Queries

F. Johnston: Your inquiry as to whether some preparations cannot be used to clean moving picture films besides alcohol or benzine, as you justly state both of these are highly imflammable.

You can prepare a mixture of benzine and tetrachloride of carbon that will answer the purpose perfectly and not injure the film, being at the same time *non-inflammable*. The proportions are as follows:

Common benzine	5 fl. oz.
Tetrachloride of carbon	6 fl. oz.

This preparation will not ignite, it will extinguish a lighted match if dipped into it, it will clean

fibers of all grease and other markings withut injury to either the gelatine or the celluloid support.

GEORGE WILLIAMS: Photographic chemicals in many instances possess different names. Thus pyrogallic acid is called pyrogallol. Is there any other name for metol? If so, what is it?

Pyrogallol is correct. Metol is the sulphate of menomethylparamidometacresol. Be sure that you pronounce this correctly when next you make a purchase over the counter, if you object to the word metol.

F. WAUS: Your inquiry about the price of platinum is correct. Platinum today is quoted at $60 per ounce.

THE EDITOR OF WILSON: Is it possible to change the color of a blue print to brown or sepia? If so, shall be greatly obliged if you will tell me how to proceed.

You can change the color of a blue print to sepia by the following method: Two stock solutions must be prepared:

No. 1

Tannic acid	2 drams
Water	6 fl. oz.

No. 2

Water	10 fl. oz.
Carbonate of potass.	½ oz.

Measure out 12 fluidounces of water and add to this 120 drops of No. 1. The print must soak well in this mixture for about five minutes; then wash the print well, place it into No. 2 solution, rocking the tray occasionally until the color desired has been obtained; after this operation, wash the print well and dry.

F. J. AUVELL: Your question as to making ruby glass artificially is answered by the following reply: Artificial ruby glass suitable for the dark room may be made by employing following simple preparation:

No. 1

Hard gelatine	300 gr.
Distilled water	10 fl. oz.
Chloride of ammonium	3 gr.
Common salt	4 gr.
Citric acid	3 gr.

Soak the above for half an hour. Heat the mixture until the gelatine has become melted, add the following slowly to the above, stirring well all the time:

No. 2

Distilled water	1 fl. oz.
Nitrate of silver	70 gr.

The pale creamy emulsion formed must be passed through folded cheese-cloth and used while warm. Coat the plates, let the emulsion become set by placing the plate on a hard cold surface. As soon as they are dry, expose the plate to strong sunlight. The depth of color will be determined by the length of exposure. The plates may then be washed, well dried, and used. About one fluidounce of emulsion will cover an 8 x 10 plate.

PHOTOGRAPHY IN GREAT BRITAIN

A REVIEW OF THE MONTH FROM OUR OWN CORRESPONDENT

LONDON, November 5, 1914.

WAR works wonders. It brings in its awful train changes that would be impossible and undreamed-of by any other consequence. It drives home effectively the ancient axiom that "necessity is the mother of invention," and although predominent in the military sense, exercises an equally powerful grip upon commerce and industry. It is a case all 'round of the survival of the fittest, and the business that does not exert every energy to extricate itself from this unfortunate but unavoidable situation must suffer. For an industry that depends in any measure upon closed markets the position is more acute, and, although self-praise is poor praise, the British commercial photographic world appears to have solved the supplies problem in a manner worthy of imitation in other channels. To summarize in a sentence the change which the past six weeks have worked I would point to the announcement that "hypo is down again." Whereas, a month ago, nine pence and a shilling per pound were common prices, there is now an abundance at the normal figure of two pence per pound. This fluctuation in one chemical alone is sufficient indication that photographic manufacturers are fully aware of their responsibilities.

War Photographs

Illustrated newspapers are sometimes so sharp that they cut themselves badly. The current war has given every illustration with the remotest military or naval interest, be it a cheap lithograph or an oil-painting, a marketable value, and the appeals of the illustrated press to the relatives of troops serving at the front to forward drawings and photographs sent to them has produced a curious miscellany. Belgium, the French frontier, and the valley of the Rhine have for many years been the happy hunting grounds of English amateur photographers, and those fortunate enough to possess a stock of views taken in these districts find they sell at a premium. Only last week I noticed a reproduction of a wayside scene in Belgium described as a recent photograph taken from the firing line. As a matter of fact the self-same photograph was exhibited five years ago at the exhibition of the Royal Photo-

graphic Society. Similarly, there recently appeared in a daily newspaper an illustration showing British troops enjoying an alfresco meal while out marching. This would have passed for fact had not a tradesman in Halifax unearthed some pictures reproduced in the same paper during the Boer war of 1900 and discovered identically the same photograph. Illustrations of aircraft are given special prominence and some remarkably good snapshots appear to have been secured by the employment of telephoto lenses. But when they are alleged to depict the assassination of an aviator in his machine, and are taken at a distance of a mile or more, they lay themselves open to suspicion. Imagination can play as important a part in topical photography as in the artistic side, notably if the incident depicted is anything in the nature of a "scoop."

Exhibition Attendances

Evidently the war has not seriously affected the photographic exhibitions recently held in London, for Mr. McIntosh, the secretary of the Royal Photographic Society, states that 4462 people visited their exhibition this year against 5885 last year. Half of the money taken at the doors has been handed over to the National Relief Fund. Other than the London exhibitions, one of the best and most representative displays of English amateur photography is the Northern Exhibition, promoted jointly by the Liverpool Amateur Photographic Association and the Manchester Amateur Photographic Society. The field covered by the members of these two bodies is wide, consequently it has generally been the rule to hold the exhibition alternately in Liverpool and Manchester. The next exhibition was advertised for February but the committee announced last week that they could not see their way to hold the exhibition on account of the exceptionally trying circumstances. This is the first exhibition of note to be postponed owing to the war.

The polychromide process of natural color photography is not as universally known as it deserves to be. It was demonstrated a few evenings ago at the gallery of the Royal Photographic Society by Mr. A. Hamburger and Mr. H. Causton. Mr. Hamberger favors the method of slightly distorting the filter before the red-sensitive plate in order to allow of fluctuations in the size of the image in the other two plates. The use of dyes was condemned by the lecturer as being injurious to the plates. Proper color sensitiveness could be obtained, he argued, without this bath, as experiments he used to conduct with dyes in his father's laboratory had proved. The fact that dyes were often represented as one color by reflected light and another by transmitted light was a disturbing discovery, so consequently he abandoned the idea of forming colored images in anilines. Pigment colors were almost as unsuited to the process as dyes by reason of the predominating tone of the one applied last. Mr. Hamburger made several exposures by the polychromide process and produced some admirable results.

Motion Portraiture

Mr. H. Farmer, lecturing at the Regent Street Polytechnic Institute, ventured a prophecy of the advent of moving-pictures into the professional photographer's studio. The present difficulty is the one of cost, and it can easily be overcome. To obtain a small continuous effect for public exhibition it is necessary, says Mr. Farmer, to have sixteen exposures per second racing through the camera. For presentation on a smaller scale this could be reduced to four without sacrificing anything. The size of the negative could also be reduced to one-fourth the present standard. So that the two reductions together would make the cost of a film along these lines one-sixteenth of the present cost. Mr. Farmer described a projector that is shortly to appear on the market expressly for the exhibition of these miniature films. Its cost would be about $50 and would be adaptable to the ordinary incandescent lights of the house. To make a four-minute film of a sitter in an ordinary studio along the suggested lines would cost under $3 and the photographer would not only make a reasonable profit upon the supply of films and duplicate copies but on the sale of the projecting machines too.

Christmas Novelties

English manufacturers have already began work upon Christmas mounts, calendars, greeting cards, and the host of other seasonable novelties which so many photographers in Britain take up on a large scale at this season. Almost every one I have so far seen bears some relation in design or motto to the European war. Calendars embossed as battleships; silhouette portraits shaped as cannon, shells, transports, etc., and mounts decorated with life-like sketches of military celebrities are everywhere predominant.

J. B. SUTCLIFFE.

WAR "SNAPSHOTS" FROM ENGLAND

THE month of October (I am writing this on the 15th day) is the time when the so-called night photographers start their perambulations with a camera after dark and secure those effective night effects which we see reproduced in journals and hung at exhibitions. We have a society of night photographers, so popular has this branch of work become. All night photographers, however, have made a very bad start this year, for at night London is in darkness. All the arc and other street lights are "off," cinemas and shops are dimmed, and we have to feel our way across the roads. And all this because German Zeppelins are expected. We

are still allowed to light our cigars in the street, but any light stronger than a match is likely to bring up a policeman. The authorities in the suburbs are as careful as those in the centre of the city. I live eight miles from the metropolis and on the line of the Germany to London Zeppelins; last night I went into our local photographic store in which three gases were alight, a policeman came in and turned two of them out. Verily the lot of a seeker after night effects is a sad one. There is probably no better night worker in London than Mr. W. L. F. Wastell, the "Walrus" of "Photography," I met him the other night with his camera in the Haymarket, looking as miserable as sin because of the banishment of street lighting and the utter impossibility of getting a subject fit for an exposure. I am hoping that things will very soon brighten up all round, if they do not some of us will have to find an excuse other than photography for being out very late at night.

Bad as the actinic power of the artificial lights is, some very artistic effects can be obtained if one has patience to give the necessary exposure. One shopkeeper has banished gas and fitted his shop with old-fashioned lanterns with candles, which gives the old shop (a bookshop) quite an Old London effect. It has been a good advertisement, as it has created a lot of talk. People rarely pass the shop without passing some remarks, while only two customers have as yet passed bad coins.

British-made amidol is now obtainable, thanks to the enterprise of Messrs. Johnson; small quantities of hydroquinone, pyro, metol and magnesium have also been produced in England and by the time these lines are read they will be obtainable in large quantities. It appears that no inconvenience has been caused by the stoppage of German supplies, but what does appear to be worrying many people is the absence of German photographic magazines, things we cannot replace. These magazines invariably contained much of pictorial and technical interest, and translations from them, chiefly by Mr. Geo. E. Brown, the indefatigable editor of the *British Journal of Photography*, were eagerly read by us.

The stoppage of the cheap bromide paper and postcards is being felt by the third-rate professional worker and the short pocketed amateur, but their loss should be a British firm's gain. Most of it was very rubbishy as one might expect at the price. I have heard of some postcards being sold at one shilling a hundred, say 400 for one dollar. These were claimed to give good results if the bromide of potassium was arranged to suit them, or as one expert put it, the cheaper the card or paper the more bromide required. Efforts to get a British maker to supply postcards and paper below the normal price have failed.

Our Board of Trade is causing some dissatisfaction in the matter of German patents. Early in August, amidst loud plaudits from the press, the "Board" prepared and rushed through Parliament a Bill to enable them "to make rules under the Patents and Designs Act, 1907, and the Trade Marks Act, 1905." As the rules gave power to suspend the patents held by Germans and Austrians, the "Board's" action seemed likely to be the means of starting many new industries in this country. But the trustful manufacturers, who thought that there was at last a chance of benefit from official action, were doomed to a more or less rude shock; many are meeting with strong official discouragement, and are, as the *Pharmaceutical Journal* mildly says, "finding that there are many things easier to obtain than a license to work a German patent." It would be perhaps unfair for me to quote some instances at the moment, and things may, after all, turn out to be very much better than they look at present.

Photographers appear to have been busy at the seat of war, and piles of prints reach the editors of illustrated papers every day. The "man in the street" looks forward very anxiously to the appearance of such papers and marvels at the pictures, little thinking how some of them are faked and worked up. Some workers are going a little too far, mainly because of the severe competition, anxiety for sole rights and the demand for sensational pictures. Pictures from the same negative often appear in several papers, and one who understands photography has only to compare them to be convinced of the amount of work some of the newspaper artists put on the prints. Some day the "man in the street" will get wise, and when he does he will cease to believe the oft-quoted saying of Gladstone's "The camera cannot lie." He will view all photographs with suspicion and when that day comes it will not be a bad one for photography as a whole.

L. Tennant Woods.

NOTES AND NEWS

Begin the New Year Right

By renewing—today—your subscription to Wilson's for 1915. A glance over this number and the Index accompanying will remind you of the splendid investment you made by subscribing for the volume now ended. Compare the return Wilson's has given you with what you have received from any other photographic journal. Weigh things, and measure

their worth by the help, inspiration, pleasure and encouragement the journals you take have brought to you. Consider for a moment the amount of practical information WILSON'S gives you month by month; the quality of its information; the interest of its pictures. Count the cost, 25 cents per month, and you will agree that as an investment "WILSON'S" is the most profitable because it is the most interesting and the most useful. You need it as a help to success.

CHEER UP AND WORK

You can't beat cheerfulness and work.

Mighty few things are as bad as they look.

Difficulties are the best stimulant.

Trouble seldom cripples a man—worry always does. Most of the trouble we worry about never happens.

It's the fear of what may happen that makes gray hair and wrinkles.

The country has its "ups and downs." Business is better some years than others. But if everything was easy there would be no excitement in the game.

If it required no brains, no nerve, no energy, no work, there would be no glory in achievement.

Cheer up and hustle.

WHY printing-out papers are so much neglected on this side with the brilliant light that is so usual, is not quite clear; and for those who may wish to try them Goldona, a self-toning paper made by Griffins of London, will be found very easy to work and to give a great variety of tones by mere fixation. Somewhat plucky negatives are required, though great control over results is possible, by printing either in a strong or weak light. Printing must be carried further than the finished print should appear and the paper is then immersed, without washing, in a 10 per cent. solution of hypo. This gives warm brown tones and darker colors are obtainable with the use of stronger fixing baths. The paper is made in three kinds, to give warm, cold or sepia tones and in varioss surfaces. It will be seen that the manipulation of the paper is of the simplest and the only chances of failure seem to be incomplete fixation in spots caused by the prints being allowed to lie one over the other.

INTERNATIONAL EXPOSITION OF PHOTOGRAPHIC ARTS AND INDUSTRIES.

To be held at New Grand Central Palace, New York City, March 27 to April 3, 1915, in connection with the Third Annual Convention Photographic Dealers' Association of America

THE principal object is to bring the dealers and manufacturers of photographic apparatus and materials in closer contact than ever before and at the same time to make it possible to invite the general public to the first exposition of this kind ever held in this country.

The exposition will consist of elaborate exhibits and displays of the merchandise of the manufacturers of photographic apparatus and materials from all over the world, as well as complete displays of merchandise closely allied thereto.

To attract attention to the convention and exposition, and as well increase the attendance of all classes of photographers and those interested in the art from all sections of the United States, working exhibits will be in continuous operation while the exposition hall is open, thus giving those in attendance the opportunity of seeing for the first time the process of manufacturing the products in question.

To amateur and professional photographers prize contests will be held and suitable prizes awarded for the best exhibits of photography in all its branches. Full particulars as to the prize print contests, etc., will have wide distribution through these mediums.

The success of the convention held in Chicago from both the standpoint of the manufacturer and the dealers was such that the attendance for the coming convention promises to be much larger, and the displays more elaborate and complete.

REPAIRING TRIPODS

IF the long rivets in a tripod joint work loose, it is better to secure them by soldering than by re-riveting. If it cannot be done by one's self, any tinsmith will do the job. The only risk consists in the liability to burn the wood round the rivet if not careful, but that is a matter easily avoided in practice, and not nearly so likely to lead to bad consequences as an inexperienced amateur attempting to firmly re-rivet the joint.—*The Amateur Photographer.*

DISHES FOR PRINTS

IT may be useful to note that for manipulating prints with any comfort the dishes used should be at least a size larger than the prints themselves. This is particularly the case with the flat xylonite dishes which are now so extensively adopted by amateurs. The prints lie closely on the bottom, and unless there is ample room to get the fingers down between the edge of the dish and the print, there is a great danger of injuring the delicate wet surface. In fact, it will be found true economy in all work with prints, when there is more than one in the dish at once, to have a liberal supply of the solution and to use a dish quite double the area of the prints that are to be worked in it.—*Photography.*

WEST VIRGINIA PHOTOGRAPHERS' ASSOCIATION

CHARLESTOWN, W. VA., October 23.—At the close of its fourth annual convention here on Wednesday, the Association of Photographers of West Virginia elected the following officers to serve during the ensuing year:

President, William Blatz, of Parkersburg; Vice-president, B. D. Davies, of Parkersburg; Secretary, Miss Josephine MacAvoy, of Buckhannon; Treasurer, W. W. Dunnington, of Weston

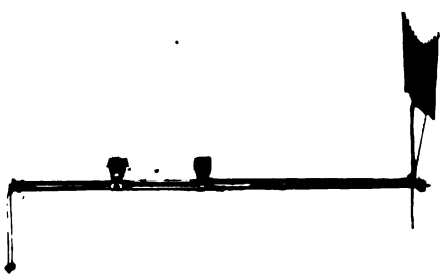
All of the officers are new except Miss MacAvoy who was re-elected secretary of the organization. The next meeting will be held in Huntington, W. Va., during October, 1915.

New Method of Aerial Photography

While it is not known how valuable the device has proved in the present war, the French military aviation corps have developed a camera which keeps a detailed photographic record of the territory traversed by a flying machine during its flight. In several respects the apparatus has the characteristics of a motion-picture instrument. It is fixed to the machine so that the lens is constantly directed toward the ground. A small auxiliary propeller regulates the operation of the shutter in accordance with the speed of the aerial craft. Each time that the shutter is opened the position of the needle of the compass and the height as indicated by the aneroid barometer are impressed on the edge of the film.—*Popular Mechanics.*

The F. & S. New Vignetter

This is a substantial, practical and thoroughly efficient vignetter that may be attached to any of the Century Studio Stands.



The operator does not find it necessary to leave his position behind the camera to adjust the vignetter to any desired position, and the adjustments are all made smoothly and easily. The knob on the right tube operates a helical gear which raises and lowers the vignetter, while the knob at the left operates a worm gear which tilts the vignetter toward, or away from, the lens. Two cords passing through the tube control the oscillating movement of the card. The entire vignetter may be moved back and forth, and a binding screw on the rear bracket provides a means for locking the tube in the desired position. Write the Folmer & Schwing Division, Eastman Kodak Co., Rochester, New York.

How to Make a Studio Pay

The first edition for this popular, very practical manual is almost exhausted. It will help *you* to make your studio pay—and pay better. Be sure to secure a copy while the supply lasts. Send one dollar to this office.

J. P. HALEY

PRESIDENT-ELECT P. A. OF N. A.

BY J. H. SARO

You Never Can Tell Till You Try

You have heard of the man who didn't know whether he could play the violin or not, but was willing to try.

His judgment may have been a little bit on the bing, but he had the right spirit.

It is well to realize our own limitations, but we are never quite sure what we can do till we take off our coats and pitch in.

The trouble with most of us is that we won't try.

The Jougla "Intensive"

This new plate, though extra rapid (Wynne speed f-111, or U. S. 768; Watkins 250), possesses extreme latitude and adapts itself almost automatically to every exposure. An under-exposed or an over-exposed plate (even up to twenty times), which would result in a complete failure with any other plate, still yields a perfect negative with the intensive.

This peculiarity of the intensive plate makes it adapted to all kinds of photography, whether in the studio or outdoors, and reduces the percentage of failures to almost nothing. Anything that can be accomplished with any rapid or slow place can be done easily and safely with this plate.

The intensive is not backed, but is, however, non-halation. With long exposures, particularly when a ray-filter is used, it yields the same color rendering as an orthochromatic plate.

A Score of Photogaphic Proverbs

Never look a gift camera in the lens.
A plate in the hypo's worth two in the slide.
It is better to have snapped and failed than never to have snapped at all.
All's well that print's well.
Where there's a subject there's a print.
It's a bad plate that has no remedy.
Intensification is vexation, reduction is as bad.
Diffusion is the better part of art.
An exhibition print is not made in a day.
What's worth taking at all is worth mounting.
A little hypo is a dangerous thing.
The proof of the negative is in the printing.
Cut your print according to your subject.
He that takes what he does not want must often want what he cannot take.
Every developer has its day.
Take care of the negatives and the print will take care of themselves.
There's many a slip 'twixt plate and print
Never count your negatives before they're exposed.
Take much; print little; frame less.

—*Amateur Photographer.*

Fine-grain Focussing Screen

Take an ordinary dry plate from the box in the dark-room. Set it up on edge and at a distance of three or four feet strike a wax vesta and let it burn for about five seconds. Now develop this fogged plate to a thin, weakish medium gray. Fix and wash it in the ordinary way. In an ounce of water dissolve 50 grains of potassium iodide till the solution is a port-wine color. Bleach the fogged plate in this. Wash it in water to which a few drops per ounce of strong ammonia are added, until the yellow stain is removed, then a rinse in plain water. Dry the plate. This gives the finest grain available.—*Amateur Photographer.*

Everyone who makes enlargements will be interested in a new folder published by Bausch & Lomb, entitled, "Enlarging with Condensers." It contains diagrams showing the proper arrangement of an enlarging system, the adjustment of the lamp, a table of magnifications, etc., as well as a price list of B. & L. condensing lenses.

Experience dictates the use of an Anastigmat for this work—such as the IIb Tessar. Since such a lens has a flat field, it will make a sharp enlargement at its full aperture with all the resulting advantages of a short exposure. Furthermore, enlargements made at large apertures do not suffer from irradiation or halation effects.

"Enlarging with Condensers" will be sent gratis upon application to the Bausch & Lomb Optical Co., 633 St. Paul St., Rochester, N. Y.

It is claimed that the RADION Light with supervoltage feature is not only simple in construction and in operation, but, on an equal capacity basis, cheaper to operate, cheaper to renew, with less pieces in the studio, and less heat on the sitter.

Actual tests show for lights equipped with this feature a superiority that is little short of amazing over any constant voltage type of light, using either plain or blue bulb.

Anyone considering the purchase of a studio light should not fail to learn what has been accomplished by the H. C. White Company in perfecting the "supervoltage" feature used on the RADION Portraiture Light.

The makers will be glad to give you full detail. Better write them today.

1915 Pennsylvania Convention Dates Set

Pittsburg, Pa., October 20, 1914.—The Board of Officers, Professional Photographers' Society of Pennsylvania held a meeting today and decided the place and dates for the coming convention.

It will be held in the large halls of the Monongahela House, Smithfield Street, Pittsburg, Pa., all on the second floor. This house is very centrally located, being across the street from the B. &. O. R. R. Station and but a short distance from the P. &. L. E. with a direct car line from the Pennsylvania or Union station.

The dates are, March 16, 17, and 18, 1915.

Drying a Negative

When a negative is put up to dry, all the water in it has to be evaporated. The more there is, the longer will be the operation take (says *Photography*). To reduce the time to a minimum, without having resort to artificial drying methods, which are always best avoided, it should be made quite dry on the glass side and edges. Then with a clean smoothly-folded handkerchief, the surface of the film should be wiped free from all surface water with a few long strokes. If it is then put up to dry it will be found that the time required has been shortened by one-half or even more. If the wiping does not start at an edge, where there would be a danger of the film being caught up and pulled from the glass, and if the handkerchief is quite smooth, there is no fear of injury, unless the photographer is very clumsy.

Wilson's for 1915

This magazine for next y ar will surpass its own long record with many valuable features and profuse illustrations of the latest and finest work. Ryland W. Phillips will contribute a notable series, beginning with January, on "Practical Talks on Studio Work," and the popular articles on "The Work of Well-known American Photographers'' will be continued. The magazine will be discontinued unless you promptly renew your subscription. Do not fail to send in your subscription at once, so that you can get the big January number.

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Cooper Hewitt Light

Then you can make any hours of the day or night business hours—profitable hours. You can handle the rush without disappointing your patrons. It is the Cooper Hewitt Light photographers who are doing the business these days and nights.

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THE PHOTO-MINIATURE: 129

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Less initial cost
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Less pieces in studio to handle

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Super-voltage Studio Lights - - $47.50 and up
Super-voltage Home Portrait Lights $45.00 and up
Constant-voltage Lights - - - - $20.00 and up

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A FAST anastigmat equally suitable for portraits, groups, and many kinds of commercial work. It cuts an angle of 60 to 70 degrees, according to the stop used and its single combination is useful for long-distance work. **The stand-by of the one-lens studio.**

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BY

H. Chapman Jones, F.I.C., F.C.S., F.R.P.S.

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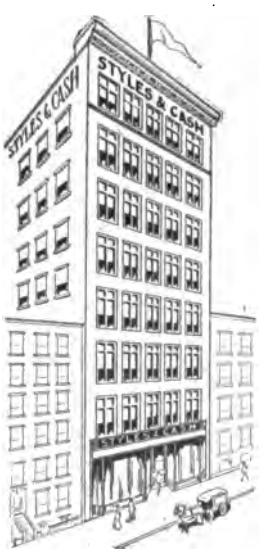

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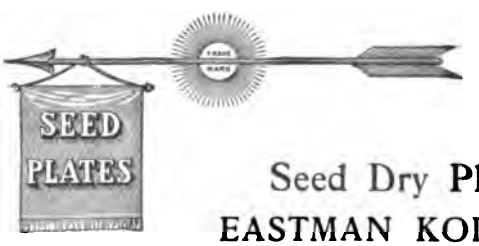

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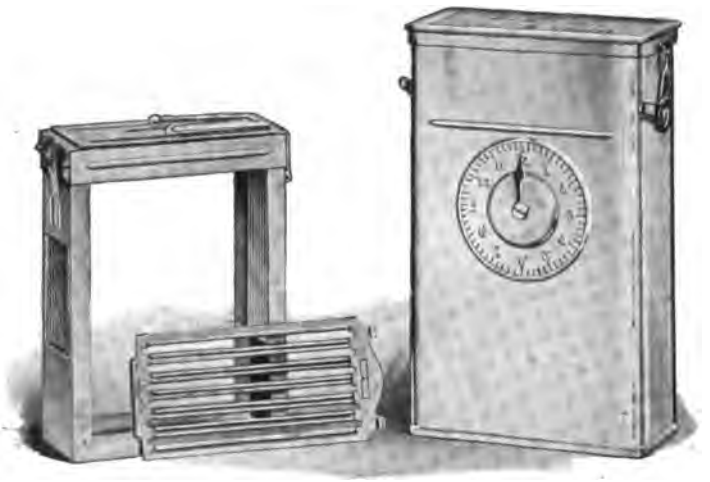

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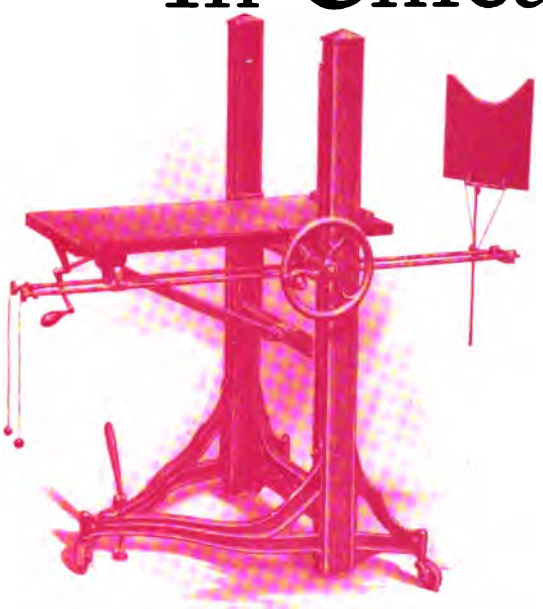

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